

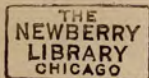
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GOETHE ON EVOLUTION.*

BY PROF. ERNST HAECKEL.

THE majority of us, I am sure, appreciate Goethe as a poet and a man only; there are but few who have an idea of the great value of his work done in the natural sciences, and of the gigantic progress with which he overtook his own age, so that most naturalists of that time were unable to keep abreast with him.

His scientific performances were not recognized by his contemporaries, and Goethe painfully felt the slight. In several passages of his scientific writings he complains bitterly of the narrow-mindedness of professional naturalists, who did not know how to appreciate his labors and who, roaming among the trees, search in vain after the forest, not being able to rise above the confused mass of single details in order to recognize the general laws of nature. Goethe's reproach is justified: "The philosopher will soon discover that there are but few observers that rise to a standpoint from which they can survey so many importantly related objects."

Yet it is true at the same time that this want of recognition was caused through the errors into which Goethe was led by his theory of colors. This theory of colors, which he himself designates as the favorite production of his leisure, however much that is beautiful it may contain, is a complete failure with regard to its foundations. The exact mathematical method by means of which alone it is possible, in inorganic sciences, but above all in physics, to raise a structure step by step on a thoroughly firm basis, was altogether repugnant to Goethe. In rejecting it he allowed himself not only to be very unjust towards the most eminent physicists, but to be led into errors which have greatly injured the fame of his other valuable works.

It is quite different in the organic sciences, in which we are but rarely able to proceed, from the beginning, upon a firm mathematical basis; we are rather compelled, by the infinitely difficult and intricate nature of the problem, at the first to form inductions—that is, we are obliged to endeavor to establish general laws by numerous individual observations, which are not quite complete. A thoughtful comparison of kindred groups of phenomena, or the method

of combination, is here the most important instrument for inquiry, and this method was applied by Goethe in his scientific investigation with as much success as with conscious knowledge of its importance.

The most celebrated among Goethe's writings concerning organic nature is his *Metamorphosis of Plants*, which appeared in 1790, a work which distinctly shows a grasp of the fundamental idea of the theory of evolution. Goethe attempted to point out a single fundamental organ, by the infinitely varied development and metamorphosis of which the whole of the endless variety of forms in the world of plants might be conceived to have arisen; this fundamental organ he found in the *leaf*.

If at that time the microscope had been generally employed, if Goethe had examined the structure of organisms by the means of the microscope, he would have gone still further, and would have seen that the leaf is itself a compound of individual parts of a lower order, that is, of *cells*. He would then not have declared that the leaf, but that the *cell* is the real fundamental organ by the multiplication, transformation, and combination (synthesis) of which, in the first place, the leaf is formed; and that, in the next place, by transformation, variation, and combination of leaves there arise all the varied beauties in form and color which we admire in the green parts, as well as in the organs of propagation, or the flowers of plants. Goethe here showed that in order to comprehend the whole of the phenomenon, we must in the first place institute comparisons and, secondly, search for a simple type, a simple original form, of which all other forms are only so many variations.

Something similar to that which he had here done with regard to the metamorphosis of plants he then did for the Vertebrate animals, in his celebrated *vertebral theory of the skull*. Goethe was the first to show, independently of Oken, who almost simultaneously arrived at the same thought, that the skull of man and of all Vertebrate animals, in particular mammals, is nothing more than a bony case, formed of the same bones,—that is, of the foremost vertebrae,—out of which the spine also is composed. The vertebrae of the skull were originally like those of the spine, bony rings lying behind each other, but in the skull

*Translated from the *Natürliche Schöpfungsgeschichte* Chapter IV, Eighth Edition, 1889.

they are now peculiarly changed and specialized. Although this idea has been greatly modified by the ingenious discoveries of Gegenbaur, yet in Goethe's day it was one of the greatest advances in comparative anatomy, and was not only one of the first advances towards the understanding of the structure of Vertebrate animals, but at the same time explained many individual phenomena. When two parts of a body, such as the skull and spine, which appear at first sight so different, were proved to be parts originally the same, developed out of one and the same foundation, one of the most difficult problems was solved. Here again we meet the notion of a single type—the conception of a single principle, which becomes infinitely varied in the different species, and in the parts of individual species.

But Goethe did not merely endeavor to search for such far-reaching laws, he also occupied himself most actively for a long time with numerous special researches, particularly in comparative anatomy. Among these, none is perhaps more interesting than his discovery of the *mid jawbone in man*. As this is, in several respects, of importance to the theory of evolution, I shall briefly explain it.

There exist in all mammals two little bones in the upper jaw, which meet in the centre of the face, below the nose, and which lie in the middle of the upper jawbone proper. These two bones, which hold the four upper cutting teeth, are recognized without difficulty in most mammals; in man, however, they were at that time unknown, and celebrated comparative anatomists even laid great stress upon this want of a mid jawbone, as they considered it to constitute the principal difference between man and ape. The want of a mid jawbone was, curiously enough, looked upon as the most human of all human characteristics.

Goethe could not accept the notion that man who, bodily considered, in all other respects was clearly a mammal of higher development, should lack this mid jawbone. By the general law of induction as to the mid jawbone he arrived at the special deductive conclusion that it must exist in man also, and Goethe did not rest satisfied until, after comparing a great number of human skulls, he really found the mid jawbone. In some individuals it is preserved throughout a whole lifetime, but usually at an early age it coalesces with the neighboring upper jawbone, and is therefore only to be found as an independent bone in very youthful skulls. In human embryos it can now easily be pointed out. In man, the mid jawbone actually exists, and to Goethe the honor is due of having first firmly established this fact, so important in many respects. This he did while opposed by the celebrated anatomist, Peter Camper, one of the highest professional authorities.

The way by which Goethe succeeded in establishing this fact is especially interesting; it is the way by which we continually advance in biological science, namely, by way of induction and deduction. *Induction* is the inference of a general law from the observation of numerous individual cases; *deduction*, on the other hand, is an inference from this general law applied to a single case which has not yet been actually observed. From the collected empirical knowledge of those days, the inductive conclusion was arrived at that all mammals had mid jawbones. Goethe drew from this the deductive conclusion, that man, whose organization was in all other respects not essentially different from mammals, must also possess this mid jawbone; and on close examination it was actually found. The deductive conclusion was confirmed and verified by experience.

Even these few remarks may serve to show the great value which we must ascribe to Goethe's biological researches. Unfortunately most of his labors devoted to this subject are so hidden in his collected works, and the most important observations and remarks so scattered in his numerous various treatises—devoted to other subjects—that it is difficult to find them out. It also sometimes happens that an excellent, truly scientific remark is so much interwoven with a mass of useless speculation, that the latter greatly detract from the former.

Nothing is perhaps more characteristic of the extraordinary interest which Goethe took in the investigation of organic nature than the vivid interest with which, even in his last years, he followed the dispute which broke out in France between Cuvier and Geoffroy de St. Hilaire. Goethe, in a special treatise which was only finished a few days before his death, in March, 1832, has given an interesting account of this remarkable dispute and its general importance, as well as an excellent description of the two great opponents. This treatise bears the title *Principes de Philosophie Zoologique par M. Geoffroy de Saint Hilaire*; it is Goethe's last work, and forms the conclusion in the edition of his collected works.

The dispute itself was, in several respects, of the highest interest. It turned essentially upon the justification of the theory of evolution. It was carried on, moreover, in the bosom of the French Academy, by both opponents, with a personal vehemence almost unheard of in the dignified sessions of that learned body. This proved that both naturalists were fighting for their most sacred and deepest convictions. The first conflict began on the 22nd of February, 1830, and was followed by several others; the fiercest combat took place on the 19th of July, 1830. Geoffroy, as the chief of the French nature-philosophers, represented the theory of natural development and the monistic

conception of nature. He maintained the mutability of organic species, the common descent of the individual species from common primary forms, and the unity of their organization—or the unity of the plan of structure, as it was then called. Cuvier was the most decided opponent of these views. He endeavored to show that the nature-philosopher had no right to arrive at such comprehensive conclusions on the basis of the empirical knowledge then possessed, and that the unity of organization—or plan of structure of organisms—as maintained by them, did not exist. He represented the teleological (dualistic) conception of nature, and maintained that "the immutability of species was a necessary condition of the existence of a scientific history of nature."

Cuvier had the great advantage over his opponent, that he was able to bring towards the proof of his assertions things obvious to the eye; these, however, were only individual facts taken out of their connection with others. Geoffroy was not able to prove the higher and general connection of individual phenomena which he maintained, by equally tangible details. Hence Cuvier, in the eyes of the majority, gained the victory, and decided the defeat of the nature-philosophy and the supremacy of the strictly empiric tendency for the next thirty years.

Goethe of course supported Geoffroy's views. How deeply interested he was, even in his 81st year, in this great contest is proved by the following anecdote related by Soret:—

"Monday, Aug. 2nd, 1830.—The news of the outbreak of the July revolution arrived in Weimar today, and caused great excitement. In the course of the afternoon I went to Goethe. 'Well?' he exclaimed as I entered, 'what do you think of this great event? The volcano has burst forth, all is in flames, and there are no more negotiations behind closed doors.' 'A dreadful affair,' I answered; 'but what else could be expected under the circumstances, and with such a ministry, except that it would end in the expulsion of the present royal family!' 'We do not seem to understand each other, my dear friend,' replied Goethe. 'I am not speaking of those people at all; I am interested in something very different, I mean the dispute between Cuvier and Geoffroy de Saint Hilaire, which has broken out in the Academy, and which is of such great importance to science.' This remark of Goethe's came upon me so unexpectedly, that I did not know what to say, and my thoughts for some minutes seemed to have come to a complete standstill. 'The affair is of the utmost importance,' he continued, 'and you cannot form any idea of what I felt on receiving the news of the meeting on the 19th. In Geoffroy de Saint Hilaire we have now a mighty ally for a long time to come. But

I also see how great the sympathy of the French scientific world must be in this affair, for, in spite of the terrible political excitement, the meeting on the 19th was attended by a full house. The best of it is, however, that the synthetic treatment of nature, introduced into France by Geoffroy, can now no longer be stopped. This matter has now become public through the discussions in the Academy, carried on in the presence of a large audience; it can no longer be referred to secret committees, or be settled or suppressed behind closed doors.'

In my work on "The General Morphology of Organisms" I have placed as headings to the different books and chapters a selection of the numerous interesting and important sentences in which Goethe clearly expresses his view of organic nature and its constant development. I will here quote a passage from the poem entitled, "The Metamorphosis of Animals" (1819):

"Members develop themselves according to laws universal:
Even the form that is strange preserveth in secret the image
Of its original type. 'Tis the animal's shape that conditions
Habits of life; and the habits again will potently model
Every different form. There is order in growth, that is steady
Yet it will change in accordance with causes externally acting."

Here, clearly enough, the contrast is indicated between the two different forces that form organisms. They are opposed to one another, and by their interaction determine the shape of the organism. On the one hand, a common inner original type, firmly maintaining itself, constitutes the foundation of the most different forms; on the other hand, the externally active influence of surroundings and habits of life, which influence the original type and transform it.

The same contrast is still more definitely pointed out in the following passage: "An inner original community forms the foundation of all organization; the variety of forms, on the other hand, arises from the necessary relations to the outer world, and we may therefore justly assume an original difference of conditions, together with an uninterruptedly progressive transformation, in order to be able to comprehend the constancy as well as the variations of the phenomena of form."

The "original type" which constitutes the foundation of every organic form "as the inner original community" is the *inner constructive force*, which receives the original direction of form-production—that is, the tendency to give rise to a particular form—and is propagated by *Inheritance*. The "uninterruptedly progressive transformation," on the other hand, which "springs from the necessary relations to the outer

* Alle Glieder bilden sich aus nach ew'gen Gesetzen,
Und die seltenste Form bewahrt im Geheimniss das Urbild.
Also bestimmt die Gestalt die Lebensweise des Thieres,
Und die Weise zu leben, sie wirkt auf alle Gestalten
Mächtig zurück. So zeigt sich fest die geordnete Bildung,
Welche zum Wechsel sich neigt durch äusserlich wirkende Wesen.

world," acting as an *external formative force*, produces, by *Adaptation* to the surrounding conditions of life, the "infinite variety of forms."

The internal formative tendency of *Inheritance*, which retains the unity of the original type, is called by Goethe in another passage the *centripetal force* of the organism, or its tendency to specification. In contrast with this he calls the external formative tendency of *Adaptation*, which produces the variety of organic forms, the *centrifugal force* of organisms, or their tendency to variation. The passage in which he clearly indicates the "equilibrium" of these two extremely important organic formative tendencies, runs as follows: "The idea of *metamorphosis* resembles the *vis centrifuga*, and would lose itself in the infinite, if a counterpoise were not added to it: I mean the tendency to *specification*, the strong power to preserve what once has come into being, a *vis centripeta* which in its deepest foundation cannot be affected by anything external."

Metamorphosis, according to Goethe, consists not merely, as the word is now generally understood, in the changes of form which the organic individual experiences during its individual development, but in a wider sense, in the transformation of organic forms in general. His idea of metamorphosis is almost synonymous with the theory of evolution. This is clear, among other things, from the following passage: "The triumph of physiological metamorphosis manifests itself where the whole separates and transforms itself into families, the families into genera, the genera into species, and then again into other varieties down to the individual. This operation of nature goes on *ad infinitum*; she cannot rest inactive, but neither can she keep and preserve all that she has produced. From seeds there are always developed varying plants, exhibiting the relations of their parts to one another in an altered manner."

Goethe had, in truth, discovered the two great mechanical forces of nature, which are the active causes of organic formations, his two organic formative tendencies—on the one hand the conservative, centripetal, and internal formative tendency of *Inheritance* or *specification*; and on the other hand the progressive, centrifugal, and external formative tendency of *Adaptation*, or *metamorphosis*. This profound biological intuition could not but lead him naturally to the fundamental idea of the Doctrine of Filiation, that is, to the conception that the organic species resembling one another in form are actually related by blood, and that they are descended from a common original type. In regard to the most important of all animal groups, namely that of Vertebrate animals, Goethe expresses this doctrine in the following passage (1796): "Thus much then we have gained, that

we may assert without hesitation that all the more perfect organic natures, such as fishes, amphibious animals, birds, mammals, and man at the head of the last, were all formed of one original type, which only varies more or less in parts which are none the less permanent, and still daily changes and modifies its form by propagation."

This sentence is of interest in more than one way. The theory that all "the more perfect organic natures," that is all Vertebrate animals, are descended from one common prototype, that they have arisen from it by propagation (*Inheritance*) and transformation (*Adaptation*), may be distinctly inferred. But it is especially interesting to observe that Goethe admits no exceptional position for man, but rather expressly includes him in the tribe of the other Vertebrate animals. The most important special inference of the Doctrine of Filiation, that man is descended from other Vertebrate animals, may here be recognized in the germ.

This exceedingly important fundamental idea is expressed by Goethe still more clearly in another passage (1807), in the following words: "If we consider plants and animals in their most imperfect condition, they can scarcely be distinguished. But this much we can say, that the creatures which by degrees emerge as plants and animals out of a common phase, where they are barely distinguishable, arrive at perfection in two opposite directions; so that the plant in the end reaches its highest glory in the tree, which is immovable and stiff, the animal in man, who possesses the greatest elasticity and freedom." This remarkable passage not only indicates most explicitly the genealogical relationship between the vegetable and animal kingdoms, but contains the germ of the monophyletic hypothesis of descent, the importance of which it would be foreign to our purpose here to discuss.

OFFICIAL PERQUISITES.

BY M. M. TRUMBULL.

HERE is a comical bit of news just come by telegraph from Paris to the American press: "Buffalo Bill feels rather chagrined at President Carnot's refusal to accept a handsome lamp that our famous American had made in this country for the French President at a cost of one thousand dollars. President Carnot refused on the ground that he accepts presents from no one."

The surprise of Buffalo Bill was greater than the chagrin. He was dazed and bewildered when he "struck the trail" of a great republic whose president never condescends to take presents from anybody. In some other great republics which he had visited it was the habit of the presidents to set the pattern for official mendacity by accepting the miscellaneous patronage of gifts from everybody.

The mistake of Buffalo Bill was easy to make. He had noticed the European custom of subsidizing lackeys, guides, waiters, railway servants, and such people, so he innocently thought that the practice prevailed through all the social and official grades from the "garçons" at the café up to the President of the Republic. In Europe, anybody whose duty it is to perform services of the humbler kind expects to receive a gratuity, and this is called a "tip." It operates as a vexatious tax, especially upon travelers, who are compelled to submit to it by force of some unwritten law. The habit of taking tips lowers the self-respect of the recipients, and gives an abject and shabby appearance to the national spirit where the habit prevails.

The artless child of the Western plains need not be "chagrined" because the President of the French Republic refused to accept a tip worth a thousand dollars. Let Buffalo Bill remember Mark Twain's disappointment and surprise at the politeness of the Emperor of Russia, who showed a party of American pilgrims all over his palace at St. Petersburg, and "made no charge." Besides, there are other republics, and other presidents in the world; let him try them. Perhaps amongst them all he may find one at least, who will gladly accept his gift.

Americans who travel in Europe are properly indignant at the extortion practiced on them under the name of tips; but a similar practice prevalent in their own country hardly provokes their censure. In Europe, the recipients of tips are the lowly and the poor, who have at least the excuse of poverty for their action; while in this country, those recipients are the influential and the rich, who have no excuse at all. Nearly all our magistrates and public officials of high rank are in the habit of taking tips.

A very good story is told of a witty American, who having traveled for several months in Europe, during all which time he had been the victim of the tip tariff, was about to return home. Going on board the steamer at Liverpool he stopped upon the gang plank and thus addressed the crowd standing on the shore: "If there is any man in this antiquated monarchy to whom I have not given 'tuppence,' let him step up and get it."

The irony in that is cutting, and well deserved; but what if some French or English tourist departing from our shores should answer with retaliatory sarcasm! Suppose that standing on the gang plank of a steamer at New York he should address the Americans on shore and say: "If there is in this young and buoyant republic any president, vice-president, cabinet minister, senator, judge, governor, mayor, or alderman, who does not accept tips from railroad companies, and other corporations, let him step up, that I may embrace him before I go." In that case the sardonic laugh would be on the other side.

Recently a Chicago newspaper compiled a strange catechism, and appointed a father confessor to examine all the judges as to their proficiency in that catechism. The result was a most humiliating show of moral ignorance. It was a revelation of the fact that nearly all the judges of the courts are in the habit of taking tips from railroad companies in the shape of passes, euphemistically called "courtesies." Now a courtesy to a judge, if it have any money value, is a bribe to the full value of the "courtesy." It may be a paltry tip, worth perhaps not more than fifty or a hundred dollars a year, but to that amount it is a bribe. The tender of a pass to a judge is to the value of it an offer of payment in advance for judicial courtesies, and the acceptance of the pass is in the nature of a due bill payable to the railroad by the judge in "courtesies" of equal value.

It is flippantly said by the defenders of judicial tips, that no cases can be found in the reports to show that the judges are corruptly influenced by railroad passes or by courtesies of similar character. This may be true in literal statement, and it is also true that no specific act of judicial corruption was proved against Lord Bacon at his trial. The receipt of "courtesies" was proved, and he confessed that he had accepted presents from persons who had causes in his court, but he denied that the courtesies had affected his decisions, or corrupted him. He was met by the obvious reply that he was corrupted the very moment he received the gifts. Judgment was given against him, and the greatest man of his time was disgraced forever.

No man in office, and especially in a judicial office, can accept presents and be free. While some of his benefactors may offer gifts from disinterested motives, others will not, and the recipient cannot distinguish the sordid from the unselfish giver. The presumption is always against the motives of a man who offers gifts to a stranger, or to any one to whom he is under no obligations.

In Europe a tip is usually begged for in an abject, humble way as a gratuity rather than a payment, but in this country it is accepted as the ignominious perquisite of rank, official station, influence, or power; but it is a tip though it be received by senator, judge, governor, or even by the president.

The statement that there is no judicial partiality shown by the courts to the railroads that give passes to the judges, is not universally true. Obviously the "reports" will not show the sinister inspiration of the decisions, yet suits against railroads are frequently thwarted and delayed by the dilatory methods familiar to the courts of law. It has become a proverb that a railroad victim will do better to settle with the corporation on its own terms, than to prosecute a suit against it.

A railroad pass is not properly a "courtesy." It is money. What shoemaker having causes in court would presume to give the judge an order for shoes? What grocer, plaintiff or defendant in a suit, would venture to give the judge a free pass for his yearly sugar and tea? It is true that a railroad pass transfers no corporeal thing, but it amounts to the company's check for the price of a ticket to any place on its road. If the fare from Chicago to San Francisco be one hundred dollars, a pass from one city to the other is a check for that amount.

Here we are met by the well known defiance, What are you going to do about it? Nothing! The vice of judicial tip-taking cannot be cured by legislation. The remedy against it lies in moral forces. It can be restrained up to the level of local public sentiment but no farther than that. The moral sense of the people must be educated up to the perception and understanding of its corrupting influence, before anything effectual can be done against it, and this tuition is begun.

AGNOSTICISM VS. GNOSTICISM.

BY PAUL R. SHIPMAN.

IN No. 94 of *The Open Court* as some of its readers may remember, the Editor did me the honor to publish an article of mine, entitled "Of Christianity, and Agnosticism," and in the same number did me the further honor of replying to the article. As his reply, marked by characteristic ability, opens up his case against agnosticism, I venture to improve the occasion in a rejoinder.

"Every real existence," he declares, "lies within the possible grasp of cognition." *Lying within the grasp of cognition* implies not mere apprehension, but comprehension. Nothing, then, is unknowable: everything is knowable. This may be monism, as the Editor styles it, but I should call it gnosticism, to which at any rate it has a better title than either the Hellenic or the Oriental system that bore the name in the dawn of our era. I shall take the liberty of calling it, with due respect, the New Gnosticism. And certainly it could not have an abler or a more accomplished expositor than the Editor of *The Open Court*. Let us compare this doctrine with agnosticism.

There are, it may be well to mention, in the first place, two kinds of knowledge—knowledge of the fact, and knowledge of the fact and its causes. The former knowledge, technically, is called historical, the latter philosophical. The knowable is that which is capable of being known in its causes—the comprehensible. The unknowable is that which not merely is known as a fact only, but is incapable of being known otherwise—known as existing, but not knowable in its na-

ture—the incomprehensible.* The recognition of something which admits of this knowledge only is agnosticism. The claim that every real existence lies within the limits of the knowable is gnosticism. Agnosticism denies that whatever is known historically may be known philosophically. Gnosticism means, if it means anything, that everything may be known philosophically that is known at all. If it does not mean this, it concedes the truth of agnosticism, and means nothing. With this preliminary explanation, we will proceed to try the issue between the two doctrines.

* * *

I hold in my hand a pencil. In cognizing it, what does cognition grasp? Ultimately, the sensations it excites, with their relations: nothing else. But, confessedly, sensation is one thing, and the real existence which produces it is a different thing. I say *confessedly*, for the Editor, in one of those luminous and delightful essays that make up his book entitled *Fundamental Problems* says: "Sensation and the phenomena † of the outer world are different. Sensations are not the real copies or images proper of things. The nervous system is not actually a mirror to reflect phenomena just as they are. Yet we may justly compare it to a mirror. For after all, certain features of the phenomena are preserved. They are consequently not so entirely different as is maintained. A certain form of phenomenon corresponds to a certain form of sensation." Granting this, with the understanding that by *phenomenon* he means the real existence which produces sensation, it is none the less true that sensation and the real existence producing it are not the same thing, but different things; for correspondence is not identity. The correspondence, he confesses, is not so close as that between a copy and the original—not so close as that between an object and its reflection in a mirror; it is really the correspondence between a sign and the thing signified—between *x* and the unknown quantity it represents. Be this as it may, however, the two are confessedly "different." In grasping sensation, therefore, cognition does not grasp the real existence producing it, which, accordingly, lies beyond the grasp of cognition. In cognizing the pencil, cognition grasps a form of matter; but not the matter of the form. This, cognition touches but cannot grasp.

The contents of mind, to generalize this view, are resolvable, in the last analysis, into the sensation of resistance, as the contents of the outer world are resolvable, in like manner, into that which causes this

* So far as I am aware, no agnostic has ever used the word *unknowable* in any other sense than this.

† Phenomena here confounds, under stress of theory, with the external thing which gives rise to sensation. Phenomena are subjective, not objective, and result from sensation, instead of producing it.

sensation. Here we have subject and object reduced to their lowest terms:—on the one hand, the sensation of resistance, as the primordial element of intelligence; on the other hand, the external something causing it, as the fundamental reality of nature. But cognition reaches no further than the sensation. "The primary condition of knowledge," the Editor admits, "is sensation." How, then, can the fundamental reality, which lies beyond sensation, lie within the grasp of cognition?

The existence of this external something is implied in the sensation which the something excites, the two being absolutely inseparable in consciousness, and hence of equal validity; but the nature of the something whose existence is thus guaranteed lies beyond sensation, and consequently beyond cognition: it is what constitutes the acknowledged difference between sensation and the thing producing it. If sensation not only limits knowledge, as the Editor confesses, but differs from the thing which produces it, as he also confesses, the difference, be it infinite or infinitesimal, is necessarily unknowable; knowledge, historical or philosophical, cannot transcend its limits.

Whatever is knowable is knowable in consciousness only; but the external thing does not appear in consciousness as it exists out of consciousness: it follows of necessity that the external thing, as it exists out of consciousness, is at once real and unknowable—known only as a fact (historically), not knowable in its causes (philosophically). And this is to say that every real existence, instead of lying within the grasp of cognition, stretches beyond it, disappearing behind the veil of consciousness; for, though consciousness reveals all we know, it conceals more than it reveals, like its emblem light, which, while unveiling the terrestrial landscape, veils the starry hosts. Night lifts the veil of light, but what shall lift the veil of consciousness?

"The subjective aspect of sensation, which we call feeling, and the objective aspect of sensation, which is a physiological phenomenon, and as such a process of motion," he may repeat, as he avers in the essay to which I have referred, "are actually one and the same thing. They are two aspects only of one and the same indivisible fact." In this case, the two are alike phenomenal, and neither can be a real copy of the external thing which gives rise to both; consequently, the argument remains undisturbed. In point of fact, the combination of molecular motions, whatever that particular combination may be, from which sensation immediately rises, is not an aspect of sensation, but the proximate cause of it—the last link in the chain of causation which connects the external thing with consciousness; but a cause and its effect are not "one and the same thing." Besides, an aspect is the appearance of a

thing from a certain point of view, the different aspects of the thing being its different appearances from different points; but points of view do not affect the constitution of a thing. An indivisible fact which is motion without feeling from one point of view, and feeling without motion* from another, is no fact at all, but simply a logical illusion. An indivisible fact divisible into motion and feeling is the most arrant of self-contradictions.

Here I might safely close my rejoinder, if I were addressing the Editor alone, for a trained logician, like a trained soldier, knows when the battle is lost or won, and rules himself by the knowledge; but in addressing the Presiding Judge of *The Open Court*, it should be remembered, one addresses the jury impanelled by that tribunal, and a jury, to be quite satisfied, needs in general to see the outworks as well as the citadel of a case lying in ruins before them. On this account chiefly it may be worth while to examine the case against agnosticism a little in detail, picking up the details here and there, as one may find them scattered throughout the Editor's extremely able though somewhat desultory discussions.

"Existence and its manifestation are not two different things," he says; "both are one." He adds, as if by way of paraphrase: "Existence and knowability are identical," and, again, "Existence, reality, and cognizability are synonymous terms." If existence and the manifestation of existence are one, what becomes of his admission that sensation and the outer existence which occasions it are "different"—that "sensations are not the real copies or images proper of things"? If existence, and its manifestation through sensation, are "different," they cannot be "one"—if the manifestation is not so much as a real copy of the thing, much less is it the thing itself.

The manifestation of existence, let it be noted, is subjective—within consciousness; the existence manifested is objective—beyond consciousness; and the former is so different from the latter as not to be a real copy of it; yet the two, asserts the philosopher who acknowledges all this, are one. If so, the same thing at the same time not only is both in consciousness and out of consciousness, but differs from its own individuality in such wise that it is not a decent counterfeit of itself.

This is not all. The manifestation of existence, in kind and degree, depends on the kind and degree of the organization in which it takes place, the higher the organization is the greater being the manifestation or susceptibility of manifestation. Inasmuch, however, as man stands at the head of organized beings, having consequently the greatest susceptibility of manifestation, it is a logical necessity that in the case at

*The Editor expressly refers to "feeling" as "being not motion."

least of every class of beings inferior to him the manifestation of existence should fall short of existence, and, moreover, that in each of these classes the excess of existence should be unknowable to the members of the class, the excess standing out of relation to the constitution of their powers, and of course beyond their grasp. Existence necessarily exceeds its manifestation or capability of manifestation, therefore, in every grade of being from the moner up to man; whose prerogative it is to feel the excess of existence which even he cannot grasp, his higher consciousness catching, first of all in the mounting scale of life, a faint yet indubitable glimpse of the Overlife, as the loftiest peak of earth is the first to glow in the light of morning.

Nor is this all. According to the law of the conservation of energy, existence is indestructible; but, if existence and its manifestation are one, either existence is destructible or its manifestation is indestructible, consequences both of which are absurd, but of which one or the other is inevitable. Take, for example, if any is needed, the familiar case of allotropism. When the existence manifested in the form of a diamond passes into the form of charcoal, what becomes of the diamond? It must survive or perish. If it survives, the existence of which it is a manifestation must be in two different states at the same time: if it perishes, as it does, it is not one with the existence of which it was a manifestation, for that is imperishable.

No: the manifestation of existence, and the existence manifested, are two things; and it is impossible to make out of them only one. The identity of existence and its manifestation implies either a manifestation that does not manifest or an existence that does not exist. The manifestation of existence is a transitory form symbolized in consciousness*; existence is the indestructible force which constitutes the subject of the form: forms may come and forms may go, but force abides forever. Only forms are knowable; that of which they are forms, lying outside of consciousness though against it, is unknowable.

"Existence and knowability are identical," we are told. Knowability by whom—man or moner? If moner, the assumption, as we have seen, is preposterously false. If man, what is the warrant for assuming that his knowing power, more than that of the moner or of any intermediate class of organisms, is capable of exhausting existence? Warrant there is none; but there is warrant, complete and authentic, for asserting the reality of something that goes beyond the utmost reach of his power—something that although

ever in view he can never seize—something that, when his striving faculties sink at length in utter exhaustion, passes freshly by. And this warrant is found, in its most authoritative form, in this very strain and collapse of his faculties; which, by showing that the negation of the assertion is absolutely inconceivable, establishes the certainty of the assertion. The warrant, indeed, is given in the primordial element of intelligence, and renewed in every act of consciousness, from birth to death. It is recorded legibly in the abstract of our cognitions—wrought in living letters in the web of mind. In short, the reality of the unknowable, is not only verified by reason, but attested by consciousness: its voucher is signed by common sense and countersigned by philosophic sense. Not by any means, observe, that it is a determinate object of thought, but is cogitated, on the contrary, to use the words of Kant, "merely as an unknown something"; it is strictly not an object, but rather a fleeting revelation of what to us is "the void and formless infinite" from which objects are "won"—the whiff and wind, if one may so express it, of the transcendent reality that passes us in every moment of our conscious life. Of all the contents of mind it is the vaguest and most subtle, and yet the simplest, for in the crucible of analysis all things else dissolve into it. If the unknowable is not real nothing is real.

* * *

"If we take away from a thing," the Editor says, "all the properties that we are accustomed to comprehend by a word, there is left the meaningless word, a mere sound, the bare string with which the bundle was tied together." What has befallen the thing? Is not that left? A mental act can hardly wipe out a material thing. Or does the thing consist in the sensations it excites, being constituted by its own consequences, which it produces before it exists? So much indeed would be required by the identity of existence and its manifestation. The properties of a thing, as we know them, are nothing more than the sensations it occasions in us, and, do or imagine what we may in regard to these, the thing itself remains intact—external to us, independent of us, unknowable by us; for, as sensations are different from the thing which occasions them, and the properties of a thing are the sensations which it occasions, the properties of a thing are necessarily different from the thing, the difference, whatever the existence that measures it, lying beyond sensation, and thus beyond the bounds of knowledge. Abstracting the properties of the thing is merely contemplating separately the transient effects of a transitory form of an indestructible force; abstraction cannot do away with one jot or tittle of this force. The thing in its inexhaustible reality, conjure as we please what we call its properties, is left untouched. Mentally

* Manifestation supposes not only something manifested but somebody to whom it is manifested. Existence out of relation with sentience is not manifested. "A pebble on the surface of the moon" exists, and is manifestable, but not manifested. To say the pebble manifests itself to the moon, and the moon to the pebble, is an impropriety of speech, putting it mildly. If manifestation means no more than contact, philosophy, I submit, has no use for the word. But in no conceivable meaning is it identical with existence.

withdrawing its properties no more exhausts it than shutting one's eyes extinguishes the sun.

"Truth," says the Editor, "being a relation between subject and object, appears to be relative in its nature." This mild and somewhat halting statement of the relativity of knowledge answers happily to a conception of the relative from which the absolute is supposed to be excluded. "Absolute existence (in fact everything absolute) is impossible," he says. Then how do we arrive at a conception of the relative? A conception of the relative exclusive of the absolute is contrary to reason; for the relative suggests the absolute as its correlative, apart from which the relative itself is inconceivable, the consciousness of a relation implying a consciousness of both terms of the relation. A conception of the relative without reference to the absolute is as impossible as a conception of the cause without reference to the effect, or of the father without reference to the child. If we take away from the relative its relation to the absolute the relative itself turns absolute. Hence, a consciousness of the absolute, indefinite yet positive, is necessitated by the conditions of the thinkable. So far from being impossible, as the Editor thinks, it is necessary. For that matter, what is the All, on the conception of which his philosophy is founded, but the absolute? The All is conditioned by nothing, for it contains everything; and the unconditioned is the absolute. If the All is not absolute, it is relative; but, if relative, it is not self-dependent, but depends on something outside of itself, in which case it is not the All, but a part of the All. His position logically engages him to shift the centre of things, and keep on shifting it, indefinitely. Archimedes, with a natural pride in his demonstration of the principle of the lever, boasted that if he had a place to stand on he could move the earth wherever he pleased; but the Editor of *The Open Court* undertakes, standing on nothing, to pry the universe from its poise, and together with it "spin forever down the ringing grooves of change." Even so he could not escape the absolute, which at every pause would confront him anew. He could more easily walk away from his shadow than think away from the absolute.

"The question itself, as to the cause of existence in general," he says, "is not admissible, for the law of causation is applicable to all phenomena of nature, but not to the existence of nature, which must be accepted as a fact." True: yet what is this but saying that "existence in general" is larger than the forms of the knowable—that it transcends them—that it stands beyond them, and independently of them—and by consequence is unknowable? Why is the question not admissible? Because, as he owns, it is one of those questions "which by their very nature admit of no answer." Why does it admit of no answer? Be-

cause the subject of it is unknowable. No other sufficient reason can be assigned. If the subject were knowable, the question self-evidently would admit of an answer. If the subject were nothing, the allegation of that fact would itself be an all-sufficient answer. But he avows that the question admits of no answer. "The question itself is not admissible," he says. And he is right. The something not ourselves that weaves ourselves is unknowable; and to ask its cause is to assume that the unknowable is knowable. The question cannot be put without defying a fundamental law of thought; the formulation of it is treason to the majesty of reason. No question could be less admissible. But what subject could be less knowable? And what remains of his case against agnosticism? He has surrendered it.

[TO BE CONTINUED.]

THE LIMITATIONS OF OUR SENSES.

ONE of the strongest arguments in favor of agnosticism is based upon the same principle as that upon which positivism stands. We recognize that the ultimate data of experience and the basis of all knowledge are sensations. Sensations naturally depend upon the character of the senses; and the senses of man—indeed those of every possible living being—are adapted according to circumstances to special sensations only. "Now it is evident," the agnostic declares, "that our knowledge is limited to those natural processes which can affect our senses; yet it is precluded from all the rest. That which cannot affect our senses will forever remain unknown to us. It is unknowable."

The fallacy of this syllogism is apparent and can be pointed out by the mere statement of innumerable discoveries concerning such natural processes as do not affect our senses. The truth is that man's knowledge is not at all limited to his own direct sensations. By the power of his mind through reflection he can, and he constantly does, transcend that narrow sphere, and he gathers new material for his experience through indirect observations.

The senses are affected indirectly, if a thing is perceived by its effects upon other things. We lack for instance an organ to perceive the chemical rays of light. They have no perceptible effect upon our eye. Nevertheless we can indirectly be affected by them when we observe their effects upon the photographer's sensitive plate. Thus we bring a process that does not affect our senses within their range through indirect observation.

There are innumerable examples of a similar kind, and the assertion that a certain thing, this or that natural phenomenon, is unknowable has by the progress of science again and again been refuted.

Let me cite one instance only from the later history of science. Auguste Comte who, under the inappropriate name of positivism, some time before the invention of the word agnosticism, propounded and defended the agnostic idea of the Unknowable, declared that certain things must necessarily remain forever hidden from the knowledge of man, and he selected as an illustration that we could never know the chemical composition of the stars. Comte's assertion appeared very plausible; the limitation of our knowledge in that line seemed to be beyond the shadow of a doubt. For there is no possibility of a chemist's ever getting a piece of, or taking a trip to, Sirius or to any other one of the stars. And yet such is the interconnection of all processes in the universe, that means were discovered to state most positively of what materials the stars consist. It was a strange irony of fate that while Comte was publishing his assertion of the agnostic view, two German scholars were analyzing the rays of the sun and the stars by a new method called spectral analysis, which in exactitude rather surpasses the cruder method of an analysis in the crucible. It is true that our chemists cannot journey to the stars, but the light of the stars travels to us and gives us information concerning the substances of which they consist.

There is nothing in the world which does not produce some effect upon something. Imagine that a certain something existed that did not in any way whatever make its existence manifest—could it be said to exist? I think not. The existence of a thing and its manifestations are identical. The existence of a thing, be it ever so insignificant, is real only by manifesting its existence through certain effects. The quality of producing effects is its reality.

We may fairly suppose that there are many things in the world which have never as yet either directly or indirectly affected us in a manner to make their reality known to us. Yet all things in the world being interconnected, there is always the possibility that their effects can somehow be brought to bear upon our faculty of observation. Whatever exists is in so far as it is real, knowable. There are certain things which from a certain standpoint are unknowable, as objects may from a certain point of view become invisible. A tree behind a house may be invisible to me but it is not invisible in itself. The Copernican conception of the solar system may be incomprehensible to a savage, yet it is not incomprehensible *per se*. Incomprehensibility is not a quality of things, not a peculiar feature of all or of certain natural processes, it does not attach to, it is not a quality of, the reality of objects.

If things or natural processes appear to us as incomprehensible, the fault is not theirs but ours. If

the whole world is incomprehensible to us, it is no proof that the world possesses the quality of being unknowable, but because we lack the quality of comprehending it; we ourselves in that case, are wanting in strength to formulate a unitary conception of all the natural phenomena which come within the reach of our observation.

Sensations are the effects of surrounding objects upon a sentient being. Sensations are the ultimate basis of all knowledge; they are the data of experience.

The duty of the scientist is to describe the facts of natural processes in such a way as to show their regularity; and the duty of the philosopher is to arrange all knowledge into one harmonious system which shall be a unitary conception of the world. Man must have a conception of the world not only because it behooves him as a thinking being to have such a conception, and because the demands of his mind have to be satisfied, but also because he is in want of a foundation for his conduct in life. Brutes follow their impulses, but man is—or ought to be—a moral being; he can regulate his actions according to certain maxims; and the maxims of individuals as well as of nations depend upon, they are derived from, their respective conceptions of the world. The various philosophies of all times and peoples find a practical expression in their ethics.

POSITIVE SCIENCE VERSUS GNOSTICISM AND AGNOSTICISM.

IN ANSWER TO MR. SHIPMAN'S CRITICISM "AGNOSTICISM VS. GNOSTICISM."

IN a criticism of *Fundamental Problems* Mr. Paul R. Shipman presents the case of Agnosticism versus Positive Monism which he calls Gnosticism, and submits it to the jury of *The Open Court*. Often it seems as if a misconception in the usage of terms on the one side or the other were the only obstacle to a conciliation of both views. But then again such a radical difference appears in the principles from which the disputants severally start, that all mutual understanding at once vanishes.

Mr. Shipman's versatility and logical acumen are well known; and the readers of *The Open Court*, whether agnostic monists, or positive monists, (for Mr. Shipman professes to be a Monist also,) will watch with interest the vigorous onslaughts he makes on our position. We shall present the case of the defense in the following separate articles:

I. GNOSTICISM AND AGNOSTICISM.

By Gnosticism (according to the etymology and the traditional use of the word) I understand a philosophy that actually is, or at least pretends to be, in possession of the truth. The gnostic knows or pretends to know all. The position of *The Open Court* is greatly different from that of gnosticism; it claims, not that we know all things, but that things and their relations can be known; natural processes can be investigated and the truth concerning them ascertained. To call this theory Gnosticism is an honor which I would rather decline.

Agnosticism maintains that things (or at least certain things) cannot be known, not merely because the present state of human

knowledge is insufficient, but because things in themselves are unknowable.

Positive monism stands in opposition to both views. It protests against the self-assurance of the gnostic who proclaims with regard to all problems his confident *invenimus*, and it protests against the diffidence of the agnostic whose constant refrain is the desperate *ignoramus*. That principle is indeed true which Professor Huxley declares to be "the essence of science whether ancient or modern," and which he strangely identifies with agnosticism, namely, "that a man shall not say he knows or believes that which he has no scientific grounds for professing to know or believe"; and taking my standpoint upon that very principle I reject the tenets of agnosticism. There are no scientific grounds, nor are there in fact any philosophical grounds, for believing in such a thing as the Unknowable.

II. COGNITION AND PHILOSOPHICAL KNOWLEDGE.

Cognition is defined in *Fundamental Problems* as the systematization of experience, and the data of experience are sensations. For instance, suppose I see for the first time in my life a camel; then I am conscious of an unwonted sensation of sight. Let it happen that after some time I see the camel again; then I recognize the animal. The comparison made between the two sensations, their identity being perceived, constitutes an act of cognition. An instance like this is the simplest case imaginable. But all more complicated cases of cognition are at bottom the same process. When I recognize the circumstances under which the motion of the moon around the earth is the same thing as the fall of a stone, so that I am able to formulate the identity of these and all similar cases in a statement called a natural law, I have accomplished an act of cognition.

Cognition, therefore, does not go beyond sensations, and it need not; it simply arranges sensations until they are all systematized into one great system.

Mr. Shipman calls "causes" what I should call reasons or natural laws. By *cause* I understand that change which produces another change. Causes, as I use the word *cause*, are facts no less than are the effects of causes; yet a statement of the reasons, i. e., an explanation why these causes have such or such effects, is a formulation of natural laws. This Mr. Shipman calls philosophical knowledge.

Mr. Shipman says, "the recognition of something which admits of historical knowledge only," (i. e., a knowledge of facts which admits of no philosophical knowledge,) "is agnosticism." Very well. But all facts admit of systematization, which is cognition; and for this reason we reject agnosticism. The ideal of science is a unitary conception of all the data of experience as one harmonious system—which would be the realization of monism.

III. SENSATIONS AND THINGS.

A sensation and the thing that causes the sensation are different. The sensation is an effect caused by the thing upon a living sentient being. The sensation reproduces in its way the form of the thing; and certain feelings correspond to certain qualities of the thing; for instance, the sensation of redness to certain vibrations of ether-waves. Thus, a sensation, or a sum of sensations, represents the thing in the brain of a sentient being.

Mr. Shipman makes too much of my "confession" that things and sensations are different. It stands to reason that all feelings and all ideas are different from things. In elucidation, I here reprint a few additional sentences of my "confession," which are not quoted by Mr. Shipman. It is a passage written in answer to M. Binet:

"A certain form of a phenomenon corresponds to a certain form of sensation. The phenomena being different among them-

selves produce sensations that in their turn also are different among themselves. And the difference suffices to distinguish them.

"The electric current in the wire of a telephone is entirely different from the air waves of sound. Nevertheless the form of air-waves produced by spoken words can be translated, as it were, into the electric current and from the electric current back again into air-waves. Both can adapt themselves to the same form and thus become messengers of information. Must we declare that all communication through the telephone is impossible because electricity and sound-waves, wire and air, are entirely different?"

IV. SENSATIONS AND KNOWLEDGE.

The difference between sensation and the thing that causes the sensation, affords not the slightest reason why the thing should be unknowable or why cognition should be impossible. To illustrate. Knowledge is a representation of things and their relations, in the mind of a thinking subject. The things need not actually enter our brain in order to be represented in our mind. All things and their relations being representable, they are knowable. A thing and its image reflected in a glass are totally different, but this does not make reflection—a representation in the mirror—impossible.

Sensation does not limit knowledge, as Mr. Shipman pretends and as he effronterously declares that I have confessed. Sensation is the basis of all knowledge. It is the building-material employed in the structure of all cognition and of all philosophies. Abstract thoughts are derived from them. Even our dreams and errors and illusions have their ultimate origin in sensations.

The most pregnant and concise answer to Mr. Shipman's argument on the unknowability of things would perhaps be a paraphrase of his own sentences, comparing the representation of cognition to the images of things produced by reflection in a glass:

"Whatever can be mirrored," our paraphrase runs, "can be mirrored in something like a glass only. But the external thing does not appear in the glass as it exists outside of the glass. The thing and the reflection of the thing are different. It follows of necessity that the external thing, as it exists out of the glass is at once real and unreflectible. The thing itself cannot be mirrored."

But why should the thing itself go into the glass? Is it not enough that it is mirrored in the glass? Why should the thing itself be grasped? Why should the thing itself enter and appear bodily in consciousness as it exists? Is it not enough that it is represented in consciousness? And being represented in consciousness, that is knowledge; being correctly and sufficiently represented, that is truth.

Mr. Shipman says, "Consciousness reveals all we know, but it conceals more than it reveals; like its emblem light which while unveiling the terrestrial landscape veils the starry hosts." This is a very fine comparison but I do not see its application. The real existence of things, Mr. Shipman says, disappears behind the veil of consciousness. An exquisite simile! But it proves to me nothing. Whatever has affected consciousness as a sensation, is represented therein. It is, in that case, thus far known (historical knowledge); and the knowledge concerning the sensation will be complete as soon as it is so arranged among all other sensations and all the memories of other sensations that it fits into their system without producing contradiction or discord (philosophical knowledge).

The truth that external things remain outside the thinking subject, that the things do not enter consciousness, although they may be represented in consciousness is, it appears, the substance of Mr. Shipman's proof of his doctrine that things are unknowable. What does that prove but that Mr. Shipman's view of "knowing" and "understanding" and "comprehending," is totally different from ours. In order to understand something we need not eat it, so as to get the thing within us; it is quite sufficient to have it represented in our minds, for that is the nature of knowledge—that and nothing else.

V. INDIVISIBLE FACTS.

A fact that is indivisible in reality can very well be divisible in our mind. When we speak of the weight of a body we refer to its weight and to that alone, not to its volume, not to other properties, not even to its mass. We designate thereby a certain property of the body, viz., that a certain stress is exerted between it and the centre of the earth. This property we separate in our minds from all the other properties, although in reality they may be and to a great extent are inseparable. Weight for instance is quite inseparable from mass. Yet it is for certain purposes necessary to make this distinction. If we speak of feeling, we make reference to that subjective process only, and not to motion; although in reality feeling may be and, I believe it is, inseparably connected with certain motions, with certain vibrations of nervous substance.

VI. WORDS.

By "manifestation" I understand the efficacy of natural processes; for manifestation means their becoming manifest, so as to be palpable and observable. The word *manifest* is derived from the Latin *manus*, hand, and *fendere*, to dash against. Thus it means palpable, perceivable; and a manifestation is every act of disclosing—a display, a revelation. The manifestation of the gravity of a stone is the fall of the stone or its pressure against the object upon which it rests.

Mr. Shipman uses manifestation in a different, and a narrower, sense. He understands by manifestation exclusively the manifestation made upon a sentient being.

Whether Mr. Shipman's usage of the word or mine is more justifiable, I do not care; in writing I employ words as I expect they will be understood. Should I find that a word is used more commonly in a different sense than that in which I am accustomed to use it, I should unhesitatingly give up my usage for the benefit of others and, indeed, for my own benefit. For all my desire in writing is, to make myself understood.

I do not propose to dwell at length upon such topics as the proper philological meaning of this or that word—provided the word in its context cannot be misunderstood. We therefore mention only incidentally the declaration made in a footnote by Mr. Shipman where it is said: "Phenomena be here confounds, under stress of theory, with the external thing which gives rise to sensation, etc." Readers of my book will recognize the incorrectness of this statement; and I call Mr. Shipman's attention to page 135 where the word phenomenon is explained. The passage quoted from my book is a comment on a quotation from M. Binet, in which I adopt his usage of the word in the sense of "natural process," which does not appear to me objectionable. There is nowhere in *Fundamental Problems* any confusion concerning the meaning of this word and Mr. Shipman's charge is unjust.

Words must be construed according to their context. By existence we might now understand the abstract and empty idea of existence and then again the concrete reality of existing things. By matter we might now mean the abstract term comprehending those qualities alone which are common to all substances, and then again all the material qualities of a special piece of matter. Every writer can expect that his readers will interpret words in agreement with the connection in which they appear—the only condition being that the author's meaning in each case be unmistakable. But ambiguity lurks in every expression separated from its context.

VII. EXISTENCE AND ITS MANIFESTATION.

The "existence" of a thing is an abstract concept of greater circumscription than is our idea of its special "manifestation," viz., the form in which it appears at a given moment. That is all Mr. Shipman can mean when he says: "Existence necessarily exceeds its manifestation." However, existence cannot be said to exceed

"its capability of manifestation," as Mr. Shipman erroneously adds.

Note here the danger of pictorial language! "The excess of existence" does not come within the range of sensation; therefore we are told, it is unknowable. This so called "excess of existence" is supposed to be something that exceeds or extends beyond its present manifestation. Mr. Shipman says: "When the existence manifested in the form of a diamond passes into the form of charcoal, what becomes of the diamond? It must survive or perish." Manifestation therefore, he concludes is perishable, existence imperishable: existence and manifestation are different.

This is an example of treating abstract concepts as concrete things. Is existence—that something "imperishable"—an essence behind the diamond? Is it at the same time diamond and charcoal, or is it something unknowable that is neither? In either case it would certainly be as Mr. Shipman declares, incomprehensible.

Existence is not an "imperishable" essence aside from its "perishable" manifestation. The abstract idea of existence is a wider generalization than the concept of its special manifestation. But the concrete existence of a given piece of reality is exactly identical with its present manifestation. That something "imperishable" of the diamond (which Mr. Shipman calls "existence") is full and entire in the diamond and will be present in its entirety in any other form into which the substance of the diamond may be put. This special form we call a diamond; in another form we call it graphite or charcoal as the case might be.

That is the simple solution of this profound problem. There is nothing mysterious in it, and I cannot detect a place upon which agnosticism is to find a foothold.

VIII. RELATIVITY OF KNOWLEDGE.

Mr. Shipman asks: "Knowability by whom—man or moner?" If I declare that a problem is solvable, will you retort the same question: by whom—man or moner? And will you maintain that because it is insolvable by the latter, it must be insolvable generally? A mathematical problem is insolvable to a child; it is beyond the understanding of the cleverest dog, but it is therefore not insolvable *per se*. Many things, many explanations of natural processes were unknowable to former generations; yet they were not unknowable in themselves.

This is my whole objection to agnosticism: *Unknowability is not a quality inherent in things*. Every thing that exists can be represented in the consciousness of a sentient being. That which is unknowable to me, is not unknowable to a man who has the deeper insight to comprehend it. I do not deny the relativity of knowledge, I do not deny the inexhaustibility of existence for cognition, nor do I deny that with the solution of every problem new problems will constantly offer themselves. Yet I do deny that the Unknown is the Unknowable; I do deny that legitimate problems exist which are insolvable.

IX. THE THING AND ITS PROPERTIES.

"If we take away from a thing all the properties that we are accustomed to comprehend by a word, there is left the meaningless word—a mere sound." Mr. Shipman asks, "What has befallen the thing?" Why, we have taken away the whole thing, of course.

Mr. Shipman imagines that the thing would remain because "a mental act can hardly wipe out a material thing." It seems as if Mr. Shipman had overlooked the "if" or supposes that the properties are assumed to be taken away mentally, i. e., from the idea of the thing only. Therefore the words *if* and *thing* are italicized in the sentence above-quoted.

What I mean to say is that the thing is the sum total of all its properties and that there is not "a thing in itself" behind its

properties. The properties of a thing are its qualities. They are not like the properties of a person in the sense of his possessions and belongings, which if all were taken away, leave the person still intact. All the properties of a thing, taken together, are the thing. Accordingly, there are no such things as things in themselves.

Here appears again a difference in the usage of words. Mr. Shipman understands by "properties" of a thing "the sensations which it occasions," while I would define "property" with Webster as "that which is proper to any thing; a peculiar quality of any thing; that which is inherent in a subject, or naturally essential to it."

X. THE ABSOLUTE AND THE IMPOSSIBLE.

"The relative" and "the absolute" are expressions signifying a certain attitude which we intend to take towards things. If I wish to consider a thing not in the relations which in reality it bears to other things, I consider it absolutely. Considering things absolutely is a mental process, but in reality things never possess any such absoluteness, they constantly remain in relations to other things.

If there is anything absolute, it is the Universe or the All; reality considered in its totality is absolute. But here again, the absoluteness of the All is an absoluteness in so far only as the All has no relations to other Alls or Universes outside of it. Yet the Universe has certain relations to its parts, as the solar system in its totality comprises certain relations to its different planets. Moreover, if the Universe, the sum total of all the celestial bodies, may be considered as possessing one common motion, would there not be a relation of the All to the direction of its own motion—or to express it in popular terms, a relation between the All and the empty space outside of it? Are there not also relations of the All as it is in this moment, to the All as it was and as it will be?

If the agnostic assumes that there is something beyond natural processes, to wit, his Unknowable, he can call absolute neither Nature nor the Unknowable. Nature is not absolute, because the agnostic believes that it depends upon the unknowable something. Mr. Shipman identifies the absolute with the Unknowable; but the Unknowable has a sense and meaning only in so far as it stands in a certain relation to nature. The absolutely absolute then must be outside of the world of real and knowable existences, it can only be a something that we need not care or bother about, and we can safely disbelieve it without committing a sin or involving ourselves in a logical fallacy.

In popular parlance the word absolute is, and we deny not that it may be, used in the sense of a relative completeness, meaning thereby that a thing has no relations in a certain direction only. The theorems of mathematics are absolute in so far as their authority is intrinsic, they are not laws proclaimed by some legislative act. Yet they are not absolute in the sense that their validity and certainty rest in midair or nowhere. They are not absolutely absolute, but may very well be called absolute for the purpose of declaring that in a certain way they are independent.

I repeat: an objectively and absolutely absolute does not exist. "Absolute" expresses not a quality of or in things, but a certain attitude of the thinking subject only. In reality there are no absolute objects, no absolute things, no absolute relations.

Mr. Shipman reasons that "the relative suggests the absolute" as its correlative. But must it therefore, simply because it is suggested, have a real existence? I do not think so. So does the possible suggest the impossible as its correlative. Is there fore the impossible a reality? If it were, then indeed Mr. Shipman's argument that "we could more easily walk away from our shadow than think away from the absolute" is no less true of the impossible.

XI. THE UNSOLVABLE PROBLEM.

Mr. Shipman uses to a great advantage my concession, as he

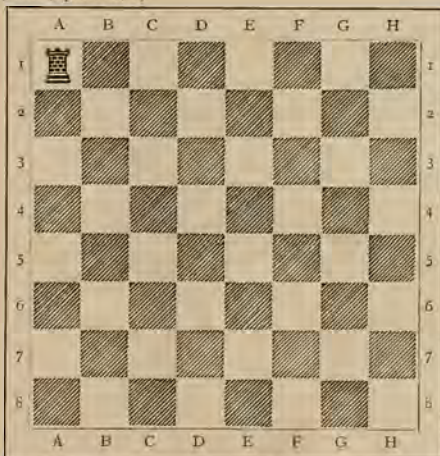
calls it, that there are problems which are insolvable. I declared that such problems as are *per se* insolvable are not admissible; they are illegitimate and wrongly stated. Mr. Shipman does not accept this view of the subject but claims with great plausibility that the mere existence of insolvable problems proves agnosticism. Indeed, I might define agnosticism as that philosophy which looks upon the basic problems of philosophy as insolvable.

It is true that I concede the existence of insolvable problems; but the existence of insolvable problems proves nothing in favor of agnosticism. Let us see what an insolvable problem is.

Take as an instance the squaring of the circle. Thousands of ingenious mathematical minds, Hindu sages, Greek philosophers, and modern thinkers, have in vain attempted a solution. Gradually certain mathematicians came to the conclusion that the problem might be insolvable, and recently Professor Lindemann, at present of the University of Königsberg, has taken the immense trouble to demonstrate that the problem *is* insolvable and to explain *why* it is insolvable. (See note on next page.) This settles the question. The squaring of the circle being shown to be impossible, the problem is solved. The solution is negative.

I might explain the nature of an insolvable problem by the following example:

Problem: Take a rook, which can move in lines parallel to the sides of the board only, and, starting from the corner square A1 of a chess-board, pass through all the squares once, but never more than once, and arrive at the corner of the board diagonally opposite (square H8).



This problem is insolvable to the extent that the performance demanded can never be accomplished. The problem, however, is to this extent solvable that we can prove that whenever the number of squares in both directions make up an even number, the demand is illegitimate. In reducing it to its simplest form, we may state the same problem as follows: Take a board divided into the four squares A, B, C, D, as the adjoined diagram shows.



Start with a rook from A, pass through B and C only once, and arrive at D. This in other words means: go to the left and at the same time to the right, and arrive at a place midway between. Or you might demand this: Move in a circle and describe one complete revolution (only one not one and a half) and arrive at the side opposite to that from which you started.

Problems that are wrongly stated must not be

considered as lying beyond our comprehension. They are not unknowable, not incomprehensible—they are illegitimate.

XII. THE AGNOSTIC'S PROBLEM.

Every rational thinker who, when working out a problem, arrives at contradictory statements, would confess at once that he must have made a mistake. The agnostic philosopher is an exception. He arrives at a *non liquet*, and it never occurring to him that the confusion might be subjective, he declares that the confusion is objective. Being taken to task, he makes the same mistakes over again, arrives at the same contradictory statements, and triumphantly proclaims his *quod erat demonstrandum*!

The agnostic attitude changes the whole character of philosophy. The philosopher's duty is to present a clear conception of the world. The agnostic's problem is to prove that things are in complete confusion. Happily it is not so. He can only prove the confusion of his conception of things.

F. C.

NR. Prof. Lindemann's essay appeared first in the *Berichte der Berliner Akademie*, (June 1882.) then in the *Comptes rendus of the French Academy* (Vol. 115, p. 72-74), and in the *Mathematische Annalen* (Vol. 20, p. 213-225). For a popular discussion of the subject see Dr. Hermann Schubert, *Die Quadratur des Kreises*, published among the *Wissenschaftliche Vorträge* by R. Vircchow and Fr. v. Holtzendorff, No. 67.

THE TALKING-WIRE.

BY LOUIS BELROSE, JR.

I slept and in my sleep there came to me
A perfect vision of my soul's desire:
Peace, born of Truth that lit the world like fire
And set all hearts aglow with sympathy.

And then there came a sound that seemed to be
The distant murmur of a golden lyre;
I woke and near my window heard a wire
In low vibration turned to melody.
O land of petty striving, loud with praise
Of heedless change and haste and wealth we store,
May softening time make music in your ways,
And school our young conceit to bow before
The simple dignity of older days
When things were less and man himself was more.
WASHINGTON, D. C., 1889.

CORRESPONDENCE.

TENURE OF LAND IN NEW ZEALAND.

To the Editor of *The Open Court* :—

SIR :—In your number 113, *Notes*, it is announced that Wheelbarrow has closed the debate *re* The Single Tax. I hope you will find room for this letter, especially as I live in so far away a country as New Zealand, and as I hope to interest your readers on the "Land-Question" as it is being administered in this country. About six years ago the government adopted what we call the "perpetual lease system," together with two other methods, "Freehold tenure" and "the Homestead tenure." As in America, the government acquired by various means, sometimes by confiscation, but mostly by purchase, large tracts of land from the natives. These lands have been dealt with from the earliest time by different methods. A large portion has been set out for various purposes in the shape of endowments, and the remainder dealt with as before mentioned.

I am not going to attempt to answer "Wheelbarrow" or his critics or say which of them has the best of the arguments *re* The Single Tax, but will state some facts. Last year out of a total area of land disposed of by the government, consisting of 200,000 acres,

170,000 acres was let under the "perpetual lease." The conditions are that the tenant shall pay to the State five per cent. on the capital value of the land so taken up, and the term of lease 25 years. At the end of that period a revaluation shall take place on the value. All improvements belong to the tenant, who has the first offer of releasing for another term. If he refuses the fresh valuation, it passes to the one who will buy.

With the consent of the State the tenant may sell out at any time. The land never passes out of the "hands" of the State. Thus you see we, or our children rather, will participate in a large State domain eventually. A man with a small capital has no need to lay out all his money on the purchase, but can immediately start to work. Purchasing the freehold acts as a deterrent. Freehold tenure is undoubtedly the best if—mark if—he can retain the freehold. I don't know how it is in America, but here in these colonies the law allows any one to mortgage their freeholds. Now a good stiff mortgage generally knocks all the sentiment off a freehold, in fact it is no longer free, but *bound*, hold. Under our perpetual lease the government will not allow, nor will any one advance a dollar on what there is no security to offer. Ample security of tenure is what I conceive to be all that is required, and I would advocate that all tenants should by law be remunerated for all improvements they may make on leasehold property, subject to certain provisions for the security of the landlord, be it individual or State.

The real evil attending land tenure, is the gambling element; if we can prevent that we shall have solved the problem.

Yours truly,

GISBORNE, New Zealand.

W. L. FILE

NOTES.

We have upon our table the following Pamphlets, Reports of Proceedings, and Brochures: "Israelite and Indian, A Parallel in Planes of Culture," by Col Garrick Mallory (New York, Appleton & Co.); "Proceedings of the Thirty-Seventh Annual Meeting of the State Historical Society of Wisconsin" (Madison, Wisconsin); "The Control and Care of Pauper Inebriates of Towns and Cities," by Lewis D. Mason, M. D. (Fort Hamilton, N. Y.); "The Voice of Labor," by David Overmyer (Lucifer Publishing House, Valley Falls, Kansas); "The Kansas Fight for Free Press," (Lucifer Publishing Company, Valley Falls, Kansas); "Natural Rights, Natural Liberty, and Natural Law," by Frank Q. Stuart (Denver, Colorado); "Eleventh Annual Report of the State Board of Health of the State of Rhode Island"; "Eighth Inaugural Address of Clark Bell, Esq.," as President of the Medico-Legal Society of New York; "Ninth Inaugural Address of Clark Bell, Esq.," "Monomania," by Clark Bell, Esq.; "Suicide and Legislation," by Clark Bell, Esq.; "The Responsibilities and Duties of the Medical Profession Regarding Alcoholic and Opium Inebriety," an address by C. W. Earle; "Observations in Chiara's Clinic and the Hospital St. Maria Nuova, Florence, Italy," by C. W. Earle, M. D. (Chicago); "Observations in Vienna," by C. W. Earle, M. D.; "Infant Feeding," by C. W. Earle, M. D.; "The Influence of Sewerage and Water Pollution on the Prevalence and Severity of Diphtheria," by Charles Warrington Earle, M. D. (Chicago); "Social Ethics," by Ezra H. Heywood; "A Christian Science Sermon on the Nonentity of a Personal Devil," by Joseph Adams; "Will Shakespeare, Tom Paine, Bob Ingersoll, and Charley Bradlaugh" (London, R. Forder, 28 Stonecutner Street, E. C.); "Report of the Department of Health of the City of Chicago, for 1888," from Commissioner Oscar De Wolf, M. D.

Dr. Paul Carus will deliver a lecture in Milwaukee on Sunday morning, March 2d, before the *Freie Gemeinde*. The subject will be *Tod und Unsterblichkeit* (Death and Immortality).

The Open Court.

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RENDER NOT EVIL FOR EVIL.

GOD is often compared in the Old Testament to a shepherd who leads his people in the paths of righteousness; and those who truthfully obey his commands, who allow themselves to be guided by him, are called his sheep, his lambs, his flock. Christ adopted the same simile and often refers to it. In the Acts (viii, 32) Christ himself is compared to a sheep. To him is referred the prophesy in Isaiah (liii, 7): "He was led as a sheep to the slaughter, and like a lamb dumb before his shearers, so opened he not his mouth."

This comparison was sufficient to give the crown of glory to the sheep. Christians forgot that similes remain similes; that they do not cover the truth in all respects, but in one or two points only: and thus it happened that the weakness of the sheep, its simplicity, nay, its very stupidity, became an ideal of moral goodness and Christian virtue. This misconception of the true meaning of goodness received a further support in such passages as "Ye resist not evil," and "Blessed are the poor in spirit for theirs is the kingdom of heaven." Mental and physical weakness, so the doctrine of Christianity seemed to say, is a moral merit; and the principle of absolute non-resistance was seriously defended by many devout believers.

In recent times Christ's word "Ye resist not evil" has come again into prominence through the teachings of Count Tolstoi, who not only adopted it as a practical rule of conduct but attempted to show through his example that it was possible to live up to it.

Christ's command, "Ye resist not evil," contains a great moral truth, and Count Tolstoi was taught it not through traditional belief in dogmatic Christianity, but through the hard facts of life. Having enjoyed a good education, he had become an unbeliever by his acquaintance with the so called sciences, and in his practical experiences he found himself confronted with many anxieties: care and worry for his beloved came upon him; he beheld the pale face of death; and in the moment of despair the unbeliever found comfort and strength in words of prayer.

Count Tolstoi was converted not by the sermons and representations of a subtle apologetic divine, but by the overwhelming logic of facts consisting in the moral relations between husband and wife, brother

and brother, friend and friend, man and man. It was life that taught the lesson "Ye resist not evil" to Tolstoi, and his religion is a religion based upon experience.

The myths of the Saviour who came into the world from spheres beyond, contain pearls of imperishable worth. Having ceased to believe in the sacred legend, we may very well preserve the moral truths that like valuable kernels are hidden in the useless husks of dogmatism. The ethical teacher of the future while rejecting the historical fables of Christ's life with an uncompromising truthfulness, must extract the gold, purified from dross, out of the ores of the old religions.

Christ's word "Ye resist not evil" must not be misinterpreted as if it meant the abolition of all struggle and a passive submission to everything vile and low. A parallel passage, 1 Peter, iii, 8, reads as follows:

"Be ye all of one mind, having compassion one of another, love as brethren, be pitiful, be courteous: not rendering evil for evil, or railing for railing; but contrariwise blessing; knowing that ye are thereunto called, that ye should inherit a blessing."

Christ's word "Ye resist not evil" demands the suppression of the natural tendency of retaliation. The brutish desire in man for vengeance whenever he suffers a wrong, should give place to brotherly love and forgiveness. This is a divine command. Yet divinity, as we understand the term, does not stand in contradiction to nature. Divinity is nature ennobled, elevated, and sanctified. The ethics of love is divine, because it is firmly established upon the facts of life; and science, if it be not blind to the moral law that pervades nature, will find that it is true. Spinoza, whose ethics is not that of revelation, says (*Ethics*, III, 43 and 44):

"Hatred is increased through hatred yet can be extinguished through love."

"Hatred if completely conquered by love, changes into love; and this love will be greater than if no hatred had preceded it."

The evil of this world cannot be lessened by counteracting it through new evil. You cannot diminish it by committing more evils. The logic of this truth is becoming recognized in society now. Suppose that some one being in a rage, called you names. Would you stoop so low as to answer in the same tone? Would you childishly act like the bad boy saying: "You're

another!" Certainly not, unless you lose your temper and do things that you will later regret.

The doctrine "Ye shall not render evil for evil," in this sense, will be more absolutely recognized the higher the standard of moral culture is. Yet this doctrine does not at all imply the abolition of all struggle and the suppression of combat and fight. We are too much accustomed to look upon struggle as the root of all evil, and in that case we shall erroneously expect that a world of moral life must be without competition, without war, without fight. The doctrine of non-resistance, in the sense of giving up all efforts to defend that which is right and just, is practically and morally untenable. Life in all its many phases is a constant struggle, and the ethics of life demands that we shall fight the good fight of faith trusting in the invincibility of the moral ideal.

The sentence "Ye resist not evil" is ambiguous and it appears preferable to express the truth of this doctrine in the words, "Render not evil for evil." Evil must be resisted, but not by other evils; selfishness must be overcome but not by other and greater selfishness. Therefore, by the side of the doctrine "Resist not evil with evil," let there appear the command: Do your best in the struggle for life and conquer evil, not because your own personal interests are at stake, but because higher principles are involved than the private affairs of your petty self. We must never lose sight of the truth that our struggle for existence, even in commercial competition, is fought for the progress of humanity and for an ever higher and better realization of human ideals.

Christ—that is, a moral teacher as described in the four gospels—could not possibly have meant by his word "Ye resist not evil," that doctrine of passive indolence that made of the sheep the ideal of moral perfection. For Christ himself fought and struggled, he discussed and wrangled with the Scribes and Pharisees. When he stood before Caiaphas, according to the account of John, he was smitten in his face, and although he was ready to endure another blow, although he had to endure worse persecutions, and although he was not willed, even if he had been able to do it, to retaliate: yet he did not suffer it with a passive non-resistance; he turned to the man who beat him and took him to account, saying: "If I have spoken evil, bear witness of the evil; but if well, why smitest thou me?"

The doctrine "Render not evil for evil" is addressed to every single person as an individual. But it does not refer to the government, nor to the magistrate. If you are a judge and called upon to pronounce a verdict, the word has no reference to your judgment. We as persons have to renounce all egotism and all vindictiveness. For egotism and the ill-will of the human

heart are the roots of all evil. Our egotism and the evil wants of petty personal desires must be renounced once for all and without reserve, not only where we do wrong, but also where we suffer wrong.

That Christ did not intend to teach the weak morals of non-resistance can be learned from his own demeanor. When he and his disciples came to Jerusalem, "Jesus went into the temple, and began to cast out them that sold and bought in the temple, and overthrew the tables of the moneychangers, and the seats of them that sold doves; and would not suffer that any man should carry any vessel through the temple. And he taught, saying unto them, Is it not written, My house shall be called of all nations the house of prayer? but ye have made it a den of thieves."

Christ did not render evil for evil where his personal interests were involved, yet if punishment is to be called an evil, he did not hesitate to render evil for evil in that dominion where he considered himself as the representative of Him that—according to his ideals of religious life—he felt had sent him.

Humanity, Christian and non-Christian, is under the influence of the sheep allegory still. One of the greatest biologists denies the existence of moral facts in nature, because the sheep and the deer are eaten by the wolves, and because in human society the same struggle for existence as in brute creation is fiercely fought, although with more refined weapons. The struggle for existence will continue, it can not be abolished, because it is a natural law, and sheepishness will never triumph in the world of real life. Having proved this, the scientist is satisfied, that nature is immoral.

Let us beware of the ethics of ovine morality. Morality is not negative, it is not mere submission to evil, no pure passivity, no suffering, simply: morality is positive. Not by the omission of certain things do we do right, but by straining all the faculties of mind and body to do our best in the struggle for life which we have to fight. We may be weak, and we may feel our weakness. The greater should our efforts be, to fight the struggle ethically. We may be poor in spirit and we may feel our want, but nature will supply us with that which we want, if we but earnestly struggle to acquire it. He who is strong in spirit and in body, he who feels his strength and misuses it, will not be the conqueror in the end. It is not the self-sufficient that are blessed; but those who are aware of their insufficiency. This only, in my opinion, can be the meaning when Christ says:

"Blessed are the poor in spirit: for theirs is the kingdom of heaven."

We must be on our guard against unfeeling sternness, yet on the other hand let us not drop into the

other extreme. We must be on our guard against ethical sentimentality also. There is too much preaching about the sweetness of religion and the rapturous delight of ethics. Yet this saccharine religiosity is just as impotent and useless as that ovine morality which glorifies in its weakness and does not struggle for strength.

Austere rigidity in religion and ethics is like a rose without odor, it is life without gladness, and obedience without loving devotion. The passivity of a lamb like submission is idealized weakness fortified and strengthened by moral vanity and sugared over with sentimental enthusiasm.

Religion and ethics, we do not deny, are full of sweetness and noble joys, yet at the same time they are stern; they are of an unrelenting severity and majesty. It is only the unison of both, the strength of austerity and the fervor of sentiment, that makes morality wholesome, sound, and healthy.

AMERICAN AUGURIES.

BY FELIX L. OSWALD.

MANY hundred years before Columbus solved the secret of the Western Atlantic, the mariners of Spain believed in the existence of a Hesperian Garden country—a miraculous island that vanished at the approach of the explorer, though the outlines of its mountains had often been seen on the distant horizon. That tradition was of Moorish origin. According to the Paradise legend of ancient Araby, Allah has not destroyed the Garden of Eden, but hides its glories from natural ken, lest the war for its possession should prove the destruction of the human race. A similar providence seems to have watched over the destinies of the New World. Two hundred years ago, when Spain, France, and England disputed the boundaries of their transatlantic possessions, it was already pretty well known that the country between Canada and Mexico combined a temperate climate with at least a million square miles of luxuriant forests, and if the political economists of the seventeenth century could have recognized the significance of those facts the nations of the Old World would have massacred each other for the possession of our territory.

For the true basis of national wealth is not gold but wood. Forest-destruction is the sin that has cost us our earthly paradise. War, pestilence, storms, fanaticism, and intemperance, together with all other social mistakes and misfortunes, have not caused half as much permanent damage as that one fatal crime against the fertility of our Mother Earth.

The axe has turned the garden-lands of the East into hopeless deserts; it has destroyed, rather than devastated, the fairer half of the habitable earth, for the ruin is practically irremediable. There is a the-

oretical possibility of reclaiming the barren lands of the East, but experience has proved that the difficulties of the task exceed the present and prospective resources of the human race. Mehemet Ali covered the Thebaid with forest-trees, but at a distance of forty yards from a permanent water-course they withered as fast as they could be replanted. In Algeria the French Government expended millions on artesian wells. They have benefited a few tribes of pastoral nomads, but their influence on the surrounding vegetation ceases with the activity of the pumpers; a single day of rest is apt to undo the work of six week days. In Eastern Persia famine has become a chronic complaint; irrigation-ditches are useless where the brooks themselves are apt to fail.

In East America, on the other hand, the combined influence of natural and artificial fertilizers has improved both the crops and the soil; we have found that "high farming" will pay, in every sense. In Persia outraged Nature refuses to be conciliated, while in Pennsylvania her bounty has no ascertained limits, and even without the influence of climatic contrasts, it would be easier to improve a fertile country to a tenfold degree of productiveness than to restore a desert to the tenth part of its former fertility.

In other words, the chances are a hundred to one that the United States will become the most densely populated country of the world, before the ingenuity of despair will enable mankind to reclaim the eastern sandwastes. The great Mediterranean desert is moving westward as fast as our centre of population, and has reached the east-shores of Italy and Spain. Africa is a dying continent; Australia is a steppe, with a narrow border of farming land. The climate of South America, like that of Hindostan, is not compatible with the habits (and still less with the vices) of the progressive races.

North America is the land of the future. In the United States various circumstances enable us to foresee the manner, as well as the degree, of our national development. The laws of Nature which guide the march of our progress, are less incalculable than the caprices of kings and priests. Time is the test of truth, and even in the years of the present generation the concurrent "streams of tendency" will show whether the following predictions are founded upon Peter Bayle's legitimate art of prophecy—the art of distinguishing the main current of events from their incidental fluctuations.

The census of A. D. 1900 will show a remarkable change in the distribution of our population: before the end of the present decade the centre will begin to move southward, instead of westward. Two hundred years ago when the first settlers of our Atlantic seaboard were guided by the comparison of natural ad-

vantages, most of them preferred the colonies south of Chesapeake Bay. The pilgrims of the Mayflower intended to settle in South Virginia, but heavy storms drove them out of their course, and their landing at Plymouth Rock was purely accidental. The next twenty years will modify the results of that accident, as well as the after-effects of negro slavery and political intolerance. Before long the climatic superiority of the "Piedmont Region," the terrace-land of the southern Alleghanies, will begin to tell. Georgia, Alabama, Tennessee, and the Carolinas will more than double their population within the next thirty years. Various industries will establish their headquarters in the South. Commercial activity in the higher phases of its present development seems to require the stimulus of a cold climate, but the mechanical industries find a congenial home under the isotherms of Lyons and Geneva, and will profit by the cheap labor of the old slave States. Cotton will be spun where it grows. The coal-fields of Tennessee and Alabama, the immense water-power of Northern Georgia, will not be much longer neglected, and after a few successful investments the rivalry of trade will soon stud the South with manufacturing towns. The railroad from Atlanta to Lynchburg, *via* Spartanburg, Charlotte and Danville, Va., is destined to rival the "Big City road" from Niagara to Lake Michigan. These Chicagoes of the South will perhaps be more orthodox than their Northern rivals—conservatism being a concomitant of climatic blessings—but they will not be Sabbatarian cities; under the latitude of Italy it has never been popular to suppress the outdoor amusements of the poor.

During the last Paris Exhibition many visitors of the "pomological department" were astonished at the size and beauty of an assortment of apples in a plain wooden show-case. They were as many-colored as a collection of agates and of the same waxy gloss, and all of them of an extraordinary size. The three largest had been weighed and labelled, 1, 1.05, and 1.35 kilogrammes, i. e., $1\frac{3}{4}$ and two pounds a piece. Those pomological marvels did not come from Avalon, nor from Lombardy, nor Smyrna, but from Macon County, in western North Carolina. On the plateau of the Southern Alleghanies the summer season is as genial as in Southern Switzerland, while its spring is just late enough to prevent the premature blossoming of fruit-trees, and thus saves them from the March frosts. This apple region comprises all the southern mountain States between the thirty-fourth and thirty-seventh parallels, and seems to be equally well adapted for pears, peaches, and figs. Immigration and experiments will settle those points, and then man-food, *par excellence*, will cease to be an article of luxury.

The West, in the meanwhile, will become the granary of the world. Factories and uncertain crops have

burdened Europe with a population of that most undesirable class which Carl Ritter calls the city refugees, fugitives from famine, whose means of migration are barely sufficient to carry them to the suburbs of the next town, where their presence tends to increase the rates of the poor-taxes, or at least the excess of food-consumers over food-producers. They die early, but their multitude turns the balance of trade by baiting life for coin, and coin for American wheat. They crowd the white-slave quarters of all large cities from Lisbon to Moscow, and their number will still increase, and with it the profits of our western farmers. But after the wheat area has spread to the borders of the arid central plateau, it will invade the woodlands of the Northwest—Michigan and the timber-belt of the northern lake-region—as well as the forests of the Mississippi Valley, and the decrease of arboreal vegetation will then begin to exert its inevitable climatic influence. The total annual rainfall will decrease, but the confluence of the winter-rains, unchecked by the moisture-absorbing network of the woods, will cause disastrous freshets; Louisiana and Arkansas will be inundated as regularly as Lower Egypt; and at the mouth of the Mississippi the deposits of river-sediment will keep a fleet of dredge-boats busy. In midsummer the uplands will be visited by more frequent droughts; the Rocky Mountain locust will establish its headquarters in Southern Missouri and colonize the cotton States. At the same time, however, the climate of the Middle and Northern States will become more agreeable—drier, namely, and milder. Excessive clearings have thus modified the climate of all southern and central Europe. In the time of Xenophon, Greece had harder winters than modern Dalmatia; on the expedition against Corcyra, Socrates marched barefoot through the deep snow, in order to silence the effeminate complaints of his young companions. The harbor of Syracuse was frequently ice-bound, and the Tiber froze nearly every year. Cyrus used to pass seven months of the year at Babylon, in the Euphrates Valley, a "region of perpetual spring," as Xenophon calls it, in the same valley where the dog-star now seems to rage perpetually. Cyrenaica, the modern Tunis, with its superheated drift-sands, where 80,000 nomads eke out a precarious existence, had once six millions of inhabitants, twenty or thirty flourishing cities, surrounded by luxuriant valleys, whose climate seems to have resembled that of our old colonies, Virginia and North Carolina. Several poets mention the "snowy summit" of Mount Soracte, a South-Italian mountain of very moderate elevation. Tacitus speaks of frozen lakes in modern Italy, and his description of the German woodlands, "horrid with frost," would have answered the present state of affairs in Northern Canada.

The average temperature of Eastern Europe must, indeed, have risen at least twenty degrees, and the disappearance of our Eastern Sylvania has already begun to produce an analogous effect. The old settlers of Northern Georgia remember a time when the Toccoa River used to "freeze solid," at least every other year, while during the last fifteen years it froze only twice,—in February, 1878, and December, 1885. When Pennsylvania was first settled, a winter like the last would have been considered miraculous; the heavy snowfall of the North counties used to blockade the overland roads to New York almost every year.

[TO BE CONTINUED.]

THE FUTURE OF RELIGION.

BY J. H. BROWN.

MR. FREDERIC HARRISON'S article in the *Fortnightly Review* on 'The Future of Agnosticism,' and Professor Huxley's reply thereto in the *Nineteenth Century*, will recall to many the discussion a few years ago in the last named Review between Mr. Harrison and Mr. Herbert Spencer on the subject of Religion—a discussion originating with Mr. Spencer's essay, 'Religion a Retrospect and Prospect.'

The interest which that notable controversy excited at the time will be remembered, and it will also be remembered that, as is the common fate with discussions of this subject, no agreement was arrived at,—indeed among the respective adherents of Mr. Spencer and Mr. Harrison to this day the moot points are points in dispute.

I should like once more to direct attention to the standpoint of these distinguished writers, to notice their fundamental differences and to suggest a line of thought in regard to this, the greatest question of our age, which, if it has not been entirely lost sight of, does not seem to me to have received the consideration its importance deserves.

Religion, I have said, is the greatest question of our age, and when we consider the part it has played in history, and the interest which anything relating to it can arouse even in this iconoclastic time, when, as has been observed, the religious novel rivals the sensational in popularity, I think it will be admitted that so to describe it is not to magnify its claim.

Among the class of thinkers who style themselves Agnostics, opinion is varied. There are those who, finding the orthodox creeds discredited, take the position that the very idea of Religion is no better than a superstitious survival, and those others who hold that in essence the thing known in the past as Religion will have for the future a meaning and, in modified forms, an import as great as was ever attached to it by sacerdotal ages. Then there is Agnosticism as represented by Professor Huxley, who is the Agnostic pure

and simple, and Agnosticism as represented by Mr. Spencer and by Mr. Harrison, who would be Agnostics if they were not also something more.

Assuming for the purposes of this essay, that dogmatic Christianity stands discredited at the bar of reason, assuming that its affirmations in regard to deity, to origin, and destiny, to the why, whence, and whither, of human life, and to a multitude of other questions are set at naught, assuming that we accept the dicta of modern Science in regard to such fundamentals of Christianity as the Fall of Man, the doctrines of the Atonement and of everlasting rewards and punishments, assuming in fine that we have seen the foundations of the Christian edifice, philosophy, church, and scheme disappear—what will be the result? Shall society remain without a unified, coherent philosophy and religion, such as the Christian church for hundreds of years supplied to its members, or shall there arise out of the ashes of the old order a new religion based upon the new philosophy, a religion which shall be wide enough to receive mankind within its pale, which shall do for the modern world what Christianity did for our fathers, what every religion in some shape has professed to do for its votaries, viz., give men a theory of the universe to which all can subscribe, a code of morals which all can approve, an ideal to which all can aspire,—a common organic bond.

My own conviction, at the outset, is that the religious emotion is a living principle of our nature. Whether on the grounds claimed by Mr. Spencer or on those set forth by Mr. Harrison, or perhaps on both, I shall hereafter attempt to show. The view that religion is a thing of priestcraft and superstition, a systematized fraud used by the wily and unscrupulous to dupe the credulous, is not entitled to respectful attention. For me it is negated by the universality of the religious sentiment.

Consideration of the purely Agnostic position need not detain us long. Agnosticism has nothing constructive or positive about it, unless what there may be of positive or constructive in denial and negation. Its very claim, as implied by its title, is that it is negative, that in regard to certain matters it takes the Agnostic position, the position of non-affirmation. It does not attempt to construct a religion, it has no word to say as to a possible future religion, and if it has been destructive of ancient faiths, it has been so only incidentally. The Agnostic, as we know him, is the philosophic scientist who, finding certain affirmations of Christianity contradicted by Science, has said so with more or less of energy and acumen. The scientists think they have said so with extreme moderation. We know on the other hand what the majority of Christians think about it. This, then, is the Agnostic position—it has rejected the authority of

Christianity, it has acted as a solvent of the ancient dogmas, it does indeed give us its opinion upon those questions of deity, origin, and destiny referred to above, but it does not pretend to tell us what religion essentially has been in the past nor what it essentially will be in the future. When it undertakes to do the latter, Agnosticism goes beyond its appellative and should make haste to get itself another name.

Two writers, one the greatest philosopher of modern times, the other one of the most brilliant of English essayists, have undertaken to tell us specifically what Religion has been in the past and what it is likely to be in the future; Mr. Spencer speaking for himself and the system of thought with which his name is identified, Mr. Harrison speaking also for himself, but speaking as well for the philosophic, political, and religious system of Auguste Comte.

These two gentlemen have necessarily passed through the critical, agnostic stage. They are Agnostics in Religion, but they are also much more, since they have something positive to affirm in regard to the future of Religion. Mr. Spencer's position is that the true source of the religious emotion is 'the consciousness of a Mystery that cannot be fathomed, and a Power that is omnipresent,' 'that Unknown Cause of which the entire Cosmos is a Manifestation,' and which, though it transcend conception, is ever present as our most abiding consciousness. This position Mr. Harrison ridicules and describes Mr. Spencer's Unknown Cause as an 'ever-present conundrum to be everlastingly given up'. Persistently ignoring Mr. Spencer's statement that 'the power which manifests itself in consciousness is but a differently conditioned form of the power which manifests itself beyond consciousness,' and that 'our lives alike physical and mental, in common with all the activities amid which we live, are but the workings of this power,' Mr. Harrison describes it as a 'logical formula begotten in controversy, dwelling apart from man and the world.' Replying to this Mr. Spencer pertinently observes, "Does Mr. Harrison really think that he represents the facts when he describes as 'dwelling apart from man and the world' that power of which man and the world are regarded products, and which is manifested through man and the world from instant to instant?"

As Mr. Spencer points out Mr. Harrison will do anything but meet this issue, and while Mr. Spencer adds to what is said above that 'though duty requires us neither to affirm nor deny personality of the Unknown Cause,' yet 'the choice is not between personality and something lower than personality, but between personality and something higher,' Mr. Harrison asks such pointless questions as 'How does the man of science approach the All-Nothingness?' and suggests that the mathematical quantity (x^n) 'would

be an appropriate symbol for the Religion of the infinite Unknowable.' It will be seen that Mr. Harrison could afford to be witty at the expense of the Unknowable, that which was once called God. Mr. Spencer, on the contrary, discusses the subject throughout in a serious and dignified tone.

As Mr. Harrison says, the difference between him and Mr. Spencer as to what Religion means is vital and profound. According to Mr. Spencer it is the emotion aroused by the mystery and magnitude of the universe, by the thought of eternity, of infinite space; by the thought of the stellar worlds, the loveliness of sunset, the glory of the starry firmament, the wonder of vegetation, the wonder of humanity: by that enfolding mystery which makes existence a continuous miracle; that profound emotion which drew from Whitman the exclamation,

"Swiftly I shrivel at the thought of God."

The emotion, the source of which Wordsworth describes as

"A presence that disturbs us with a joy
Of elevated thoughts, a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean, and the living air,
And the blue sky, and in the mind of man:
A motion and a spirit that impels
All thinking things, all objects of all thought,
And rolls through all things."

The emotion which inspired the oft-quoted lines spoken by Faust to Margaret:

"Who can name Him, and, knowing what he says,
Say 'I believe in Him?' And who can feel,
And with self-violence to conscious wrong
Hardening his heart, say, 'I believe Him not?'
The All-embracing, All-sustaining One.
Say doth he not embrace, sustain, include
Thee?—Me?—Himself?—Bends not the sky above?
And earth on which we are is it not firm,
And over us with constant kindly smile
The sleepless stars keep everlasting watch;
Am I not here gazing into thine eyes?
And does not All that is,
Seen and unseen mysterious all—
Around thee and within,
Untiring agency,
Press on thy heart and mind?
Fill thy whole heart with it."

According to Mr. Harrison, 'Religion is mainly a thing of feeling and of conduct, and is concerned essentially with duty.' He agrees that it must have an intellectual base, but the weakness of the Positivist's position is that its intellectual base will not bear the obvious and ordinary logical pressure. Here it might be well to say squarely that Mr. Harrison's Religion leaves out entirely the idea of God. Comte, whom he follows in this, professed to re-organize society '*sans dieu ni roi*,'—without God or king,—and if the idea of the Unknown Cause had any place in the Positivist system, it would be impossible for Mr. Harrison to be funny about the 'All-Nothingness.' Mr. Harrison will have nothing to do with the Unknown Cause. He prefers, on the whole, to regard humanity as the

uncaused. He will not admit that a Power greater than Humanity has produced humanity. Humanity, according to him, deserves in some way the credit of having produced itself, of having sustained itself through the ages, and to humanity alone humanity must look for its future prosperity and progress. Alas for this vain-glorious humanity, if for one hour the sun should withdraw his friendly light and heat! Denying that humanity depends upon an unknown Cause for its very existence, Mr. Harrison finds that Mr. Spencer, in insisting upon this as a truth, is insisting 'on one of the most gigantic paradoxes in the history of thought.' He is fond of recurring to this paradox. He evidently thinks that here Mr. Spencer is very weak and he himself is very strong. But so far as Mr. Spencer takes his argument there is no weak link in his chain. He might have taken it further.

Had Mr. Spencer set out, as Mr. Harrison has done, to found a religion, I have no doubt that he would have taken his argument further. For such a purpose he could logically have extended it so as to include in his religious system Mr. Harrison's Religion of Humanity. And the wonder of it is that Mr. Harrison, who has set out to found a Religion, did not, from his own ground, see this. With Mr. Spencer humanity is forever connected with the Unknowable Power, being a part and manifestation of that Power, and therefore whatever emotions of awe and wonder are excited by the contemplation of the universe are inseparably linked with those other emotions of love, compassion, admiration, etc., which the thought of humanity stirs in us as members of the human family. To Mr. Spencer this course is logically possible—to Mr. Harrison it is not. While making merry over Mr. Spencer's 'gigantic paradox,' he is himself blind to the paradox wherein he attempts to make humanity stand alone and unsupported—a house in the air, a structure without a foundation, a product without a producer, an effect without a cause (for if humanity be caused, where is the intellectual base for Mr. Harrison's Religion of Humanity, since an Unknown Cause is rejected?). And thus, committing intellectual suicide, Mr. Harrison cuts himself off from that source of high emotion which is abundantly shown by Mr. Spencer to have an intellectual base.

It seems to me then that by a union of their forces and thus only can the philosophy and feeling of a world-religion be developed. Mr. Spencer would find it necessary to embrace in his religious system, as he has already embraced in his philosophy, man's life and the source thereof. The domain of religion will ever be co-extensive with that of philosophy; they necessarily supplement each other, philosophy furnishing the thought-element, religion the element of feeling. Mr. Harrison must needs admit the logical

insufficiency of his Religion of Humanity, and accept the intellectual basis and source of religious emotion insisted on by Mr. Spencer.

THE SIGNIFICANCE OF HYPNOTISM.

The entire mass of psychological data furnished by modern researches, and especially by hypnotic investigations, may be divided into three groups:

(1) The normal phenomena of soul-life, which can be observed in every-day life;

(2) Abnormal phenomena of soul-life, which can be reproduced under special conditions and thus admit of verification by experiment; and

(3) Abnormal phenomena of soul-life observed by certain individuals who are supposed, or claim, to be in possession of special gifts (such as second sight and telepathy).

The data of the first two classes alone can be considered as indubitable facts; those of the third class rest on a very weak authority, considering the innumerable illusions that can take place in individuals given to the belief in the miraculous.

The psychological data of indubitable character, i. e., the phenomena of every one's normal soul life, and those experiments of psychic research which admit of verification by experiment, we have learned, exhibit a strong tendency to corroborate the monistic view of psychological phenomena. Dualism indeed is limited to the third class as a store-house for its weapons of attack, and psychologists of a dualistic bias have therefore taken pains to gather all attainable reports about telepathy and second sight as experienced by certain individuals of a specially spiritual nature. If dualists wish to convince the world of the truth of dualism, they must derive their proofs from the data of the two first classes, which are generally acknowledged as facts by science. These, however, seem to exclude a dualistic interpretation; so strong is their evidence in favor of the inseparable unity of psychological and physiological phenomena!

Ideas are no disembodied ghosts created from supersensible or supernatural elements, they are real structures that live in our brain, possessed of a definite form and produced in the nervous substance through sensory impressions. In calling them ideas, we do not, however, as a rule refer to their physiological objectivity, which forms their bodily reality, but to their spiritual subjectivity: we refer to that indescribable phenomenon which every living being experiences when he feels and thinks. The whole empire of subjective experiences is called the *ideal*, while the processes of motion that take place in the world of objective existences, are called the *real*.

Dualism looks upon the real and the ideal as two distinct worlds which exist independently of each

other. In the human body, it is conceded, they are united into a wonderful harmony. The ideal inhabits the real as a house; the spirit animates the body for some time, but it may leave the body, as a prisoner leaves his prison, thenceforth to live as a pure spirit.

Monism looks upon the ideal and the real as two inseparable aspects of one and the same fact, they are two abstractions made for different purposes and abstracted from one and the same indivisible object. Monism considers the world as a living actuality, which naturally in an evolution from lower to higher forms evolves ever higher souls, thus raising the subjectivity of atomic life to the intellectuality of a human being.

When we speak of the ideal in man, (*ideal* is here used in the philosophical sense of the purely subjective,) we must bear in mind that the ideal and the real do not in actual life exclude one another.* Feelings pure and simple without their proper physiological conditions do not exist; thoughts without the thinking brain-structures in which they take place, are impossible. We might just as well speak of movement without a moving body. Therefore the ideal by itself, the thinking subject, abstract and absolute, is an absurdity. It does not exist. The thinking subject is always at the same time a bodily object of actual and material reality. Not only the thinking subject upon the whole, but every detail of the thinking subject's feelings, his sensations and thoughts,—every irritation felt, every idea thought,—every emotion taking place in the empire of the ideal, mean at the same time a special modification of nervous substance in the empire of the real. The parallelism between the real and the ideal is, so far as science has investigated, uncontradicted and perfect.

The ideal therefore is a special kind of reality; and indeed it is the most important part, the most real and most actual element of reality. The ideal in its highest development, being the empire of feeling and thinking subjectivity, is the product of organized life. The non-organized elements can be said to contain the germs only, the mere potentiality to bring forth the empire of the ideal. In the sensations and thoughts of sentient creatures the different objects of reality are depicted; they are mirrored therein as images, as ideas. The literal translation of the Greek word *idea* (*εἶδος*) is image. The ideal is the realm of representations; and the objects represented in the subjectivity of a sentient being, are the objective realities of its own body and of the things of the surrounding world.

The existence of the ideal gives meaning and pur-

pose to the world of bodily realities. Sentient beings can make the objects around them subservient to their needs and comforts; and man, the first born son of nature, will have dominion over the earth in proportion as his ideas are correct images of things and of the relations among things.

The monistic view is thus corroborated through those results of psychology which can be considered as indubitable facts. An idea, being a bodily structure of nervous substance and being situated in the centre of the organism, viz., the brain, must be of paramount importance, even if we consider its activity as a mere physiological process. The brain is the capital of the body; it is the seat of the government, whence orders are issued to, and obeyed in, all the various provinces of the different organs and limbs.

Facts being as they are, can we wonder that ideas of fear, of worry and anxiety produce pathological conditions in the body?

It is well known that sudden or extraordinary terror may kill a person. Goethe describes in his *Erkling* how a child dies from fright in the arms of his father riding on horseback through a stormy night. The boy imagines that the *Erkling* is attempting to snatch him away and thus he becomes a prey of the phantoms of his own imagination.

Similarly Gottfried Bürger describes the death of Leonore with masterly accuracy, as if he had studied in hospitals the deliriums of fever-patients. Leonore expects her betrothed home from the war, but she does not find him among those who return. In despair she beats her bosom and tears her hair, but in the hush of night she hears him knock at the door, she sees him enter, his horse is waiting and he takes her along over dale and hill, over rivers and mountains far away to be married—in the grave.

There is an old story about a court-fool (which may briefly be told without vouching for its truth) that was condemned to death by the sword. The duke, however, had pardoned him, but had given the order not to let him know. The fool's punishment should be, to go through all the terrors of execution. The executioner, then, should strike the blow not with a sword but with a sausage. When the fool, so the story goes, received the harmless stroke, he fell, dead, to the ground. He died from the idea of death.*

The physiological reality of ideas renders it necessary that the ideas of the central soul influence the unconscious activity of the peripheral soul. This is especially noticeable in certain functions, for instance in the movements of the digestive organs, which are not under the control of the will, yet are strongly and almost immediately influenced by certain states of mind in one or another way. Unusual wrath poisons the

*The word *real* may be used in a limited and in a more extended sense. In the former sense, when strictly confined to bodily objectivity, it excludes the ideal; in the latter sense, when signifying all facts that can become objects of experience, it includes the ideal also. Thoughts and feelings are ideal; and yet they are realities.

*The story is told in many different versions.

milk of a mother; and great excitement so alters the secretion of saliva that the bites of infuriated dogs or other animals become extremely dangerous.

Almost all hypnotists report cases in which burns and blisters have been produced by means of suggestion. A certain part of the skin is touched with a harmless instrument or with the finger, and after a while an inflammation appears at the very same spot, reproducing the exact form of the contact. This proves that the trophic functions of the muscles and the skin, those functions that build the wasted tissues up again, and nourish them, stand in close connection with the nerves and depend upon their activity. We do not believe that the burn produced through suggestion is a real burn; it is the perturbation of the trophic function of the nerves, caused through the idea that a reaction is necessary against an imaginary wound. Thereby redness is produced which has the appearance of inflammation.

The blood perspiration attributed to certain saints and the appearance of the holy stigmata on their bodies must likewise be explained as the results of suggestion: they are produced through the auto-suggestion of prayer and a strong concentration of the mind.

While terror, cares, and worry will have injurious effects, joyous and gay ideas may in the same way act as a medicine for good. The firm confidence of a patient in his physician, the strong hope of convalescence will under otherwise favorable conditions do a great deal in curing, and healing, and soothing. The mental disposition of a patient is of great and incalculable importance in the cure.

Man's imagination is no empty nothing; nor is it a mere psychical and purely subjective illusion. Every single act of imagination is a real physiological process which can be made available to do a certain amount of work. There is some truth in the methods of faith-cure, yet we should be wary not to overrate the power of imagination. Ideas as physiological processes and in their physiological effects have a special and limited province; and we cannot expect that they should cure a cancer or set aright a broken leg.

Considering the great effects often produced under the spell of a properly directed imagination, several physicians in France, Switzerland, and in other countries have proposed to use hypnotism and suggestion as curative methods for all kinds of diseases. They have been successful to some extent, although the extravagant hopes that hypnotism might be a panacea were by no means fulfilled. On the contrary, all the results hitherto obtained, it seems, are such as might also have been produced through the bringing on of natural sleep.

Extravagant reports about cures effected by such hypnotizers are not beyond the suspicion of self-de-

lusion, and cannot be accepted without reserve. Most of our hypnotizers—among them even some of great name—suffer from the same disease as their patients; namely, from illusions. Many cures are effected on individuals who have an imaginary disease, which disappears under the influence of a counter-imagination. In such a case the disease as well as the cure is an hallucination of the patient in which his physician kindly shares.

There are other cases in which the patient suffers from a real disease, which seems to be overcome under the influence of hopeful and elevating hallucinations. The cure appears to be perfect for a time; yet there comes a relapse after a while against which no faith-cure or hypnotism will avail.

Natural sleep is undoubtedly one of the strongest and best curatives. Perhaps it is the very best medicine that can be employed. Hypnotism, it seems to me, should be resorted to by the physician only under such circumstances where natural sleep cannot be had.

The wonderful effects of natural sleep will find their explanation, if we bear in mind that in the state of rest together with the obliteration of consciousness the trophic functions of the nerves seem to increase in proportion as other activities cease. Sleep, therefore, is the state of re-generation, it is the restoration of the vitality expended during the period of activity. It is a process of hoarding up again in the tissues of the organism that potential energy which affords new life and fresh vigor to think and to act.

P. C.

THE PHILOSOPHY OF THE VEDANTA.

The *Open Court* has received the following works in the English language, classed under the head of the *Vedanta Series*, published by the Vedanta Publishing House,* of Heeralal Dhole, 127 Musjeed Bari Street, Calcutta, India.

1. A MANUAL OF ADWAITA PHILOSOPHY: THE VEDANTASARA. With Commentary. Translated from the Sanskrit by Dr. Nandalal Dhole.

2. THE VICHARSAAGAR; OF METAPHYSICS OF THE UPANISHADS. Translated into English by Lala Sree-ram Sahib.

3. THE PANCHADASI. A Handbook of Hindu Pantheism. Translated by Dr. Nandalal Dhole.

4. VICHARMALA. Translated into English by Lala Sree-ram Sahib.

5. SHIVA SANHITA. The Esoteric Science and Philosophy of the *Tantras*.† From the Sanskrit, with notes and a preliminary discourse on Yoga Philosophy. By Babu Shishu Chunder Vasu.

6. ON THE ROAD TO SELF-KNOWLEDGE. By Sriyat Sankaracharya, translated by Anantlal Baner.

The uninitiated European reader, naturally, will be somewhat startled at the weird and varied titles and subjects of these many exotic flowers of the ancient and modern Hindu intellect; but, in reality each and all of these works, either directly or indirectly, will be found to bear upon one and same subject—the *Philosophy of the Vedanta*.

* Orders for these works will be received by The Open Court Publishing Company, Chicago, Ill.

† *Tantras* are works containing the rules and mystic practices of the Yoga philosophy, for the attainment of superhuman power.

Through the strenuous efforts of modern comparative philology, the nations of the West are no longer altogether unfamiliar with the languages and literature, or even with the religious and philosophical systems of ancient India. On the banks of the Indus and the Ganges, the purely physical traits of the descendants of the Aryas, certainly, might have been obscured, or almost obliterated, but the subtle and versatile *Aryan mind* has lived forth in the sublime profound thought and original genius revealed in all the phases of ancient and modern Hindu literature. In fact, the results of modern comparative philology have at last firmly established, that there cannot be said to exist any impassable intellectual chasm between the western nations and the Hindus.

The historical evolution of their religion, and subsequently of their several philosophical systems, at each advanced step, affords exceptionally striking analogies to the corresponding development of Europe. A few explanatory philological remarks may possibly facilitate to the reader the understanding of the above-mentioned highly abstruse works, and convince him of their paramount importance for the general history of religious and philosophical thought.

During a long succession of ages the dogmas and ritual of the old Vedic religion held undisputed sway in India. The five Vedas—the *Rigveda*, *Samaveda*, *White Yajurveda*, *Black Yajurveda*, and *Atharvaveda* embodied all the hymns, dogmas, theogony and cosmogony, of the Vedic religion; and somewhat later the oldest orthodox theological schools of *Mantras* and *Brahmanas* exclusively monopolized the interpretation of the Vedas. But in the sixth century before Christ there arose the Buddhistic heresy. This was the first departure from the teachings of the orthodox theological schools. Buddhism appealed to reason, and by the Brahmins it was stigmatized as heresy, as the science of reason—*hetuśāstra*. From this time, as a natural sequel to the endless controversies with the followers of Buddha, the Brahmins themselves were compelled to construct orthodox philosophical systems, and thereupon there arose six schools of Hindu philosophy. They were by no means all of them orthodox; but they all at least professed respect for the Vedas, while the Buddhists openly rejected them. The *Sankhya* system, attributed to the philosopher Kapila, was materialistic and sceptical. It declared matter to be eternal, and coexistent with spirit.

But the most orthodox of these schools was the *Vedanta* philosophy. It was constructed upon the teachings of the Vedas, and to this day it remains the traditional national philosophy of the Hindus. *Vedanta* literally means 'conclusion,'—or terminating sections of the Vedas. These terminating sections are otherwise called *Upanishads*, which are orthodox commentaries and interpretations of the doctrine of the Vedas. The Upanishads, thus, are short speculative treatises, appended to each of the Vedas, to the prodigious number of about 235; but only 13 are considered as really important. By native authors the word *Upanishad* is derived from the Sanskrit root *śad*, to destroy; Upanishads are supposed to destroy ignorance and illusions. But by Professor Max Müller it is derived from *śad*, to sit down, denoting the idea of a session of pupils listening to their teacher.

The Upanishads, usually, were written in the form of a dialogue,—in prose, with occasional snatches of verse. They are destitute of system and of strict philosophical methods. Their speculation is disconnected and wayward, and is absolutely controlled by the impulse of the moment. As the learned Professor Cowell remarks, the authors are really poets, without the faintest thoughts of harmonizing to-day's feelings with those of yesterday or to-morrow. Vedanta philosophy, accordingly, signifies the doctrine derived from the Upanishads, and in this wider sense the term Vedanta, of course, denotes the end and scope of the Vedas.

The gist of the metaphysics of the Upanishads—of works like the *Vicharanga*, *Panchadasi*, *Vicharimala*, recently published in

Dhole's "*Vedanta Series*,"—is, preeminently, pure spiritualism, as diametrically opposed to the materialistic Sankhya philosophy. In this series, however, the treatise entitled the *Vedantasara* is decidedly the most important. As the name denotes, the *Vedantasara* is the *essence* of the Vedas, and the purest expression of Vedantism. It treats of *Atma* and *Paramatma*, that is, of individual spirit and the absolute. It is a highly condensed and ingenious summary of the *Upanishads*, and of the entire Vedanta philosophy; a master-key to the doctrine of the *non-duality of the soul*,—the *gupta vidya*, or hidden science, and itself is a master-piece of philosophical occultism. The world, according to the Vedantasara, is not real, substantial, but is made up of *Maya*, illusion, and *avidya*, ignorance. Only by the destruction of both can man effect the *moksha*, or liberation of the spirit, and the ultimate absorption in Brahma. The old Vedic religion and the Upanishads, certainly, from the very beginning contained the abundant germs of a "hidden science," and this tendency later culminated in the abstruse categories of the Vedantasara,—itself, in its turn, calling forth endless interpretations and commentaries. But, even this primitive Hindu philosophy, or rather *theosophy*, was not altogether stationary; its historical evolution was marked by several successive phases. The *world's reality* and Brahma's *material causativity* were certainly maintained by the early authors of the Upanishads, namely, the *Vedantists of the old school*. The distinguished Sanskrit Scholar, Colebrooke, is actually inclined to believe that the world's reality was taught by *Sankaracharya* himself, who is said to have lived in the 8th century of our era, and that the doctrine of illusion—*Maya*—is a graft of a later growth. Sankaracharya, at all events, is still a high authority with modern Hindu theosophists; but in his work "On the road to self-knowledge," also published in this Vedanta series, from the tenor of the chapter entitled *Paramarthasara*, it would be hazardous to conclude that he really belonged to the Vedantists of the old school.

It is superfluous to dwell upon the intrinsic merits of all these English versions and their accompanying introductions, notes, and commentaries. The translators are highly competent native Sanskrit scholars, but several of these works, as the *Vicharimala*, *Panchadasi*, and *Vicharanga*,—all of them more or less comprehensive compendiums of the metaphysics of the Upanishads,—have been translated from the *Hindi*, in which they originally had been written.

It seems particularly worthy of notice, that translators and publishers alike claim to have been prompted to their undertaking by national and patriotic motives, and by the alarming spread of materialism in India. In the interest of both spiritualism and Hindu nationalism the translators ardently advocate even that hybrid, extravagant theosophy, which long has been associated with the names of Col. Olcott and Mme. Blavatsky, and, at the same time, they profess their absolute emancipation from the narrow views of the old Hindu schools. "The twice-born," they say, "has retired from the conspicuous position of his ancestors behind the desk of a government office or a merchant's counter. . . . Materialism has supplanted idealism. . . . At this momentous conjuncture Olcott, the president founder of the theosophical society, and Mme. Blavatsky appeared in India, and by their incessant efforts stimulated the study of the truths of the ancient Hindu religion—in fact, of all ancient religions. . . . What is theosophy? It is not a new term, coined by Olcott or Blavatsky." The most recent Hindu theosophical brotherhood "includes men of all nationalities. It is no religion, it has no religious belief. It is simply the highest development of a particular system of philosophy, helping the individual to realize his latent powers by a particular method of study and practice (*yoga*)."

In other words, recent Hindu theosophy, admittedly is practically a form of occultism, mainly based upon the exaggerated yoga-practice of a degenerate Vedantism.

But, we readily admit, that despite many repellent features, the European student of religious philosophies ought "to dive deep into all these works, and try to pick up what gems he may find in them. Even among those who cannot find, many will be none the worse, but considerably better for the diligent search."

A. H. GUNLOGSEN.

CORRESPONDENCE.

THE BANISHMENT OF THE NEGROES.

To the Editor of *The Open Court* :—

In reply to the letters from Mrs. E. O. Smith and Prof. E. D. Cope, in *The Open Court* for February 20th, I must say that I am still opposed to banishing our colored citizens to Africa.

A good reason why this should not be done is furnished by Mrs. Smith when she calls them "a people with civilized instincts." She is living among them, and I accept her testimony gratefully. If we must banish anybody, it should be people without civilized instincts. She makes this objection to my article of February 6th: "The writer is mistaken when he says that the negro population of the country were largely opposed to emigration." But I never said that they were opposed to emigrating in any direction. While slavery existed, they showed so much desire and capacity for emigrating to the free North, as form strong evidence in favor of their fitness for being permitted to remain citizens of the United States. They were also strongly in favor, at that time, of emigrating to Hayti. As I said, they were unwilling, even then, to emigrate to Africa. No sooner was the Colonization Society organized for that purpose, by the election of officers, in January, 1817, than resolutions of protest were passed, that same month, by meetings of the free colored people of Richmond, Virginia, as well as by those of Philadelphia, where the opposition was repeated that August. These were the "earliest remonstrances," and they were made more than ten years before Garrison was converted from a friend to an enemy of colonization. "Some of his colored friends in Baltimore were the first to point out to him its dangerous character and tendency." One of these negroes published articles against the Society, in 1828, and signed himself "A Colored Baltimorean." This was two years and a half before *The Liberator* began, and four years before the publication of Mr. Garrison's *Thoughts on African Colonization*, a pamphlet containing a long series of public protests from colored people. Mr. Thompson's conversion is of still later date. These facts are taken from the first volume of Garrison's life, by his sons (pp. 147, 297, etc.).

The Professor takes up most of my objections to his plan, but not the serious one of expense. It seems to me the duty of the proposer of so vast a scheme to state how much it would cost, and then to prove that our government could afford to pay the bill. He joins issue with me on the question whether the negro could be spared from the South. Mr. Douglass says he could not; and I suspect it would be hard to supply other laborers, who do so much good work for so little money. Here again, however, the burden of proof lies on my antagonist; and I leave it for him to say who are ready to fill the vacancy he wishes to make. When he answers this question, I hope he will give particular attention to "the black bottoms," and other localities, notoriously unhealthy for white men, but extremely productive under negro labor.

I insist on these points, because I am not "a pure idealist," but am trying to get this question into such a shape that it may be settled in a common-sense way. For this reason, I meet what is said about the inferiority of the black race to the white, in "mental status" and anatomical structure, by asking to be told precisely, what provision is made, either by the laws of the land, or by the

precepts of any system of morality, for the banishment of inferior races by superior ones.

I am glad to see my opponent acknowledge his plan to be unconstitutional; but he does not say how he is going to get round this obstacle which seems to me to settle the question. He still brings up the dangers of negro rule and race-mixture. He does not, however, refer to the fact, that the latter peril is on the decrease, according to the testimony of Dr. Haygood and Mr. Moise. What is still more important, from a practical point of view, is the restraint imposed on mixed marriages by State laws. There has been very little danger of negro rule for the last fifteen years. The methods adopted to overthrow it have certainly been sufficiently effective; and, bad as they were, they do not seem to me so wicked as it would be to treat a whole race of inoffensive citizens in the cruel way that England treated felons, until she grew too philanthropic. Fortunately, we are not reduced to such a terrible choice, as that between intimidation and banishment. The present condition of the District of Columbia, where no resident votes, whether black or white, shows the just and wise way to govern a community, whose inhabitants cannot govern themselves satisfactorily. A similar plan has, I think, been adopted in some counties of North Carolina, where the officials are appointed by the state. These measures were taken expressly to keep negroes out of politics; but it ought to be remembered that a similar step has been taken in at least one city where there are but few colored people. The Boston police are now under Commissioners chosen by the Governor. This may not be the best possible plan; but is it not better than it would be to banish the entire population of both Boston and Washington to Africa?

It would be no more unjust to banish all the people of a city, than to banish a whole race. If either proceeding would be worse than the other, it would be that proposed against the eight millions. To banish all our colored citizens, even the most intellectual, enterprising, and patriotic, because some of them are too anxious to vote, and others too willing to intermarry, would be like the way that Herod adopted in hope of getting rid of a political peril in Bethlehem. The loss of life in that little village could not have been more than a trifle in comparison with what would be caused by the great voyage. If there is any injustice in this comparison, it is that of judging poor old Herod by modern standards. The time, when there could be any excuse for inflicting wholesale punishments upon millions of victims, went by long ago. If there is any race in this country which has more right than another to protest against such an outrage, it is the people whose ancestors were brought here by force and then kept in slavery. The greatness of the wrongs which were then heaped upon them, ought to protect them against all future discriminations to their injury. If it is necessary to offer up millions of exiles on the altar of Liberty, let us not take the blacks, but the most vicious and degraded of their oppressors.

Fortunately, however, the age of human sacrifice closed long ago. Our country's altar is not that of Moloch. The only way to treat vicious and degraded people, whether white or black, is to reform and elevate them. The duty of a superior race to an inferior one is to educate and develop it, as the mother does the child. There may be some doubt as to what should be done with races which do not wish to be civilized; but there should be none in the case of a race which has shown an unusual capacity for accepting civilization. If the negro has been found more able to imitate higher races than to make progress independently, that is a strong reason for keeping him under elevating influences, and not sending him away to relapse into barbarism. If he is still subject to "degrading vices and maddening superstitions," then this fact would make it peculiarly wicked for us, to take away his strongest restraints, and fling him into the midst of temptation. If "the negro has conspicuously failed in all but absolute governments,"

we have no right to force him to choose once more between despotism and anarchy in Africa. All these pretexts for sending the negro into exile, are really reasons why he should continue to remain among us. If he needs instruction, let him have all he will take; but what he needs most is full liberty to use the opportunities of improvement, which our country gives to all her citizens. He is not so much our inferior as to be unable to improve himself, if he is still allowed a chance to do so in America. He has a "natural right," or rather a moral one, to use all the advantages of living here, as freely as any other citizen; and it will not, I hope, be discourteous for me to say plainly that I cannot help looking at any attempt, or threat, to deprive him of this right, as morally wrong.

F. M. HOLLAND.

CONCORD, MASS., Feb. 25th.

OUR COLORED CITIZENS.

To the Editor of *The Open Court* :—

THE articles by Dr. Cope and Gen. Trumbull (*The Return of the Negroes to Africa*, and *Waste of Time in Congress*), are of the highest local and present interest. Underneath the ethics of those articles lie the universal verities at which your journal is aimed. The recent assassination of a United States official in Florida has called attention anew to the mass of corruption that festers around public and official business in the United States. The Trumbull paper would do good issued as a tract to the people. It is impossible to get at the truth in any secular journal.

Mrs. E. Oakes Smith's voice on the Negro Question seems too much like one out of the past. I have lived twelve years among the colored people of Florida since their emancipation. To say that Liberty has been thrust upon them and that they receive it without dignity, that they utter complaints and make statements known to be false, I must dissent from. Personally, I know that a thousand colored men in this state were willing during the Civil War to spring to arms, the moment the Government was forced to take their help. Personally, I know they do their duty by the ballot wonderfully well in contrast to the languid indifference of many who were born to it. Laboring colored men among my neighbors in Florida walk miles to the office of registration to insure their exercise of the ballot. What white voters do this or would be expected to do it?

It is interesting to read the two phases of the question presented by such able minds as Mr. Holland and Dr. Cope. In the "broken arcs" of their individual views we shall come very closely to seeing the "perfect round" of truth.

But first the ideal and afterward the physical. We do *not* "bow to the physical fact," and we *will not*, any more than we did twenty years ago to the physical fact of the Slave market under a Government that proclaimed freedom on its flag. The ideal then asserted its right to be and made its claim good. Let us trust the ideal even though the physical fact oppose it as it usually does. The ideal is eternal, the physical fact changes and passes. Let justice be done though the heavens fall.

By what natural right can one or many enter my house and tell me to pack up and return to the land of my forefathers, which they left but a brief century and a half ago. Who owes the world or the people in it, that one dictated by fears can say to them, go here or go there.

The dangers of this question have been carefully discussed for half a century and looking on the past we may trust the future, if we do our whole duty as a nation. If the nation staggered and failed thirty years ago at the proposition to *purchase* the slaves when they were three millions, what can it do now that they are six millions, and children of the soil? The old Hebrew Song, "The earth is the Lord's," rings in my ears at the thought of warning away six million Americans from our fenced-off province.

We will trust the ideal, and the physical fact will soon be found to fall into line with it. Colored Americans will stay in America, and we must adjust ourselves to the fact.

Very truly yours,

WALTHAM, MASS.

MARY GUNNING.

PROBABILITIES AND THE MULTIPLICATION OF DENOMINATE QUANTITIES.

To the Editor of *The Open Court* :—

A SHORT article by Mr. Paul R. Shipman in *The Open Court* of Feb. 13, contains a mistake so glaring that it were a pity to leave it unchallenged.

The probability of an event is defined as the ratio of the whole number of events to the number which satisfy the conditions in question, when the whole number is increased without limit. Strictly we must not say that, since there are six possible throws with a die, the probability of any given throw is one-sixth unless we have previously concluded from considerations of symmetry that in a very large number of throws there *must* be the same number of each throw, and consequently that the ratio of the whole number of throws to the number of a particular throw must be one-sixth. If indeed we should find that this is not the ratio when the number of throws is increased without limit, then the probability of that throw cannot be one-sixth. If the number of heads and tails approach equality when the number of throws with a coin is increased without limit, then the probability of either is one-half—the heads or tails being half the whole number.

The criterion of the approximate equality of two numbers a and b is not that $a - b$ = nearly zero, but that $\frac{a}{b}$ = nearly unity.

Indeed two numbers each exceedingly small may differ by an exceedingly small quantity; i. e., $a - b$ may be very nearly equal to zero while $\frac{a}{b}$ may be as large as we please. Again with very large

numbers $a - b$ may be as large as we please, while $\frac{a}{b}$ is at the same time as nearly equal to unity as we please.

For example if a man promises \$10, and has but \$1, we think he falls far short of his obligations, but if he were to promise \$100 and have \$91, or if he were to promise \$1,000,000 and have \$999,991 we would think much less of it.

Of course, in some cases we may find it more significant to judge of an approximate equality by the condition $a - b = 0$ nearly; while in other cases it is far more significant to judge by means of the condition $\frac{a}{b}$ = nearly unity.

And this latter criterion is the only one that retains any significance, when a and b are either very large or very small. Hence to say that the number of heads and tails of a symmetrical coin approach equality means that their ratio approaches unity.

Mr. Shipman is decidedly mistaken when he claims the influence of antecedents upon probability, and he does an injustice to Bernoulli in making him appear to sustain this false position.

The possibility of multiplying together two denominate numbers rests entirely upon *convention* as to the interpretation of the product. Physicists have discarded the school-boy notion of this impossibility and have long since admitted the significance of such

expressions as: $\frac{\text{length}}{\text{time}}, \frac{\text{mass} \times (\text{length})^2}{(\text{time})^2},$

and many others. The significance of these may be understood, when we consider that all physical quantities are conceived to depend upon fundamental units of length, mass, and time.

$$\text{Thus } \frac{(\text{length})^{\frac{3}{2}} (\text{mass})^{\frac{1}{2}}}{\text{time}}$$

signifies either a quantity of magnetism or a quantity of free electricity, according to convention. We would read the above as: The square root of a cube of a length multiplied by the square root of a mass divided by a time.

This sounds very wonderful, but the simplicity of it is best illustrated by an example.

If a body is moving at a velocity of

$$\frac{150 \text{ feet}}{\text{sec.}}$$

(read feet per sec.) and if it travels for 10 sec., then it will travel

$$\frac{150 \text{ feet}}{\text{sec.}} \times 10 \text{ sec.}$$

= 1500 feet, since time cancels. Of course one may beat around the bush and finally reduce this operation to multiplying by the pure number 10, but the convenience of considering a velocity

$$\frac{\text{length}}{\text{time}}$$

is very great. In the case of electrical and magnetic quantities the principle is just as simple, and as purely conventional, but of course far more complicated.

That branch of algebra called quaternions is built upon a conception of the product of complex quantities; e. g., a meaning is conceived of the product of two lines, or of any two quantities which include both size and direction, or indeed any two numerical specifications whatever.

UNIVERSITY OF KANSAS.

M. S. FRANKLIN.

THE PROPER WORK OF WOMAN.

To the Editor of *The Open Court* :—

PROF. COPE in his otherwise able article commits the error men always do when discussing the "Woman question." That of supposing clever women desire to be "manish." There is nothing in man's nature or condition to make true women wish to give up their birthright; for as a woman advances in intelligence she realizes a sex in mind, and finds that woman is the broader, higher, finer, the natural complement of man. Woman having finer mental and moral perceptions elevates; man adds strength, and both are raised in tone. Man concentrates his force in one direction, attains knowledge to that end, but cares for nothing outside his trade or profession. Woman by nature and environment is many-sided, educated in various directions, and if necessity demands concentration, can assimilate this knowledge. Mental antagonism between the sexes is unwise, a womanly woman is always strong, as is a manly man; they cannot attempt to change places, without becoming a monstrosity repellent to all. The problem for man is to overcome a latent jealousy, for woman to emancipate herself and lift man, for as the women are so will the men be. The true relations are side by side each dominant in their own place, neither subordinate. And when women recognize but one code of morals for both, man will be her fitting companion, and marriage will not be a failure. This will come. The start has been made. Mothers are the real educators. I hope some abler and more experienced pen will take up this matter, for nothing can be trivial that affects the good of the race. The mistake of most women's organizations is they work for men. This without the ballot is fighting windmills. This relic of the dark ages will pass away, and women will see that raising the moral status of their own sex elevates all. Man isolated from good female influence reverts to savagery, as witness the last known Siberian atrocity—against helpless womanhood that should rouse Christendom to protest.

MARY BROWN,

GREENFIELD, O.

BOOK REVIEWS.

THE SCIENCE OF THE CHRIST. By Ursula N. Gestefeld. Chicago: 1839. Central Music Hall.

The title of this book is a new form of expression for the system which has become familiar under the name of "Christian Science." It is an attempt to explain in a spiritual sense the occult meaning of the Scriptures, and in the language of the author, "it is intended to be a key to the true nature of the Bible."

According to this book, the statements of the Bible "are forms or figurative expressions making problems which reveal their principle when solved." The author claims that it is no more necessary that those statements be true than that the form of a mathematical problem should be true. As, for instance, a boy had four apples, and gave two of them to his sister, how many did he have left? Whether or not the boy gave any apples to his sister, is of no consequence. That statement is merely a form of putting the mathematical problem "two from four, how many remain?" In like manner, we are told there is an occult truth in every statement of the Bible, no matter whether the statement be true or not. This occult meaning may be discovered by those who have sufficient spiritual insight to solve the problem.

All that is ingenious, but it is an easy thing to force upon any passage in the Bible a selected meaning. Unfortunately for the argument, the Bible is a statement and a record, except in those parts of it where a purely spiritual or figurative meaning is evident. The Bible cannot be dissolved into metaphysical mist by the exorcism of words. It appears further, that this hidden meaning of the Bible can be discerned only by those endowed with the special gift of psychological perception, or according to the author's way of stating it, "if this perception is not self-evident truth, there is no way of proving it true to the one who lacks the perception."

Mrs. Gestefeld says that "the book called Genesis contains in the form of narratives a complete statement in outline of Divine Science, or the Science of the Christ." On this foundation she has built her book. It is rickety and infirm on its pedestal, because the author starts by misunderstanding the book of Genesis, and the titles of the deity expressed therein. The whole stream of her argument flows out of a mistake, and it is therefore tainted throughout its entire length by the errors at the fountain.

In this book, God is declared to be "The One Mind," "The One Intelligence," "The One Spirit," "The One Life," "The One Substance," "The One Soul," "The One I Am." This definition is contradicted when the author discovers two Gods in the book of Genesis, having allowed herself to be misled by the two different expressions used in that book to describe the one deity. Her mistake is like that which might be made by some reader of American history in future ages, who should imagine that President George Washington and General George Washington are two persons.

Some of the spiritual meanings which Mrs. Gestefeld finds in the statements made in Genesis are poetical and interesting, although somewhat fanciful and overstrained; as, for instance, her speculative guess at what the Bible means by the "two great lights" mentioned in the first chapter. Mrs. Gestefeld says, "The two great lights are Spiritual Perception and Intellect."

"The lesser light—Intellect, with its powers and capabilities, with the 'stars,' or lesser lights, Reason, Judgment, etc.,—rules the night; or the darkness which is seeing—looking at, only."

This may be a correct metaphysical explanation of the "two great lights," but it will hardly displace the obvious meaning of the language used in Genesis that they are the visible Sun and Moon, and that God made them on the fourth day. We distort the meaning of Scripture instead of explaining it, when we say that "the two great lights" are anything else than the Sun and Moon, and that the "stars" are mere abstract human qualities,

"Reason, Judgment, etc., and not the actual stars now shining in the sky."

All the confusion grows out of the mistake that Chapters i, ii, and iii of Genesis are a continuous narrative by the same writer, when it is plainly evident that Chapters ii and iii contain a different account of the events recorded in Chapter i. The two compositions are entirely unlike in statement, style, taste, and idiom. They are by two different authors and the writer of one account lived in an age remotely distant from that of the other. They use a different nomenclature to describe the deity, and this apparent duplication of names has involved Mrs. Gestefeld in a labyrinth of metaphysical complications out of which she never contrives to escape. It will be seen at a glance that what ought to be the three last verses of Chapter i in Genesis have been cut off, and prefixed to Chapter ii. Restoring these to Chapter i, and skipping over to Chapter v, we have a narrative coherent and continuous. Chapter i flows naturally and logically into Chapter v, and these were undoubtedly written by the same author. Verses 25 and 26 of Chapter iv are an interpolation made to connect Seth with Cain and Abel. The writer of the fifth chapter of Genesis knew nothing of Cain and Abel as is plain from his opening statement, "This is the book of the generations of Adam." In that book there is no mention of either Cain or Abel.

Chapter i was written when the title of the Creator was simply "God." Chapter ii was written when the title was "Lord God." These are merely two different names, not two different Gods. In Chapter iv the title is "Lord." They all refer to the one supreme deity. It is curious that leaving out Chapters ii and iii, we do not find the titles "Lord" and "God" united until Noah's benediction, "Blessed be the Lord God of Shem"; and not again until the time of Abraham; although they are used separately and interchangeably, meaning the same deity. This is proved by the speech of Abraham, "I have lift up mine hand unto the Lord, the most high God."

Having firmly adopted the mistake about the two Gods, Mrs. Gestefeld explains their separate offices, attributes, and powers, and thinks that God, or as she terms it "God—Mind," having created the Heavens and the Earth, in the Abstract during the six days, the "Lord God" then made them in the Concrete on the seventh day. She says: "And in this seventh day the Lord God makes the earth and the heavens. Through this process the abstract earth becomes the concrete earth, and not until then is the work finished." Becoming more and more entangled, she concludes at last that the "Lord God" is man; "As the product of the seventh day's work, Man, or the Lord God, makes the other earth for himself." "Man—the Image—the Lord God, has not a Mind—a mind of his own, for there is but One; and that One Mind is God."

The meanings given by Mrs. Gestefeld to Scripture passages, are purely fanciful. No evidence is offered that these are the correct meanings, and very little argument is presented beyond the confident assertions of the author.

T.

THE ETHICS OF THE HEBREW SCRIPTURES. Arranged and edited by Isaac S. Moses and Adolph Moses. Chicago: E. Rubovits and Bro.

A most meritorious publication; a book that can be used as a text-book for liberal Sunday Schools and excellently adapted for ethical instruction. It is, as the title says, a collection of moral gems extracted from the Bible. The translation, it appears, is that of the King James's edition, with a few alterations, and the division of lines according to their poetical structure, makes it very readable.

It is to be regretted that no critical or explanatory remarks concerning the different authors have been added. They would

have brought their sayings and their wisdom so much more home to us.

Why have not Christians brought out a similar book long ago? If the reverend Rabbis had added the best gems from the New Testament, which in part will certainly remind them of Hillel and others of their own sages, it would have added to the value of the volume.

It would be difficult to point, in any of the current numbers of our special magazines, to a more interesting and varied collection of essays on philosophical subjects than is to be found in the last number of the *Proceedings of the Aristotelian Society for the Systematic Study of Philosophy* (London: Williams & Norgate, Editor, Prof. W. R. Dunstan, M. A.). Its contents are as follows: "Common Sense Philosophies," by Shadworth H. Hodgson, LL. D.; "The Stand-Point and First Conclusions of Scholastic Philosophy," by M. H. Dzewicki; "The Philosophy of Revelation," by Rev. J. Lightfoot, M. A., D. Sc.; "Do Separate Psychological Functions require Separate Physiological Organs?" by Bernard Hollander; *Symposium*: "What Takes Place in Voluntary Action?" (1) by J. S. Mann, M. A., Fellow and Lecturer of Trinity College, Oxford, (2) by Pasco Daphne, LL. B., (3) by Bernard Bosanquet; "The Part Played by Aesthetic in the Growth of Modern Philosophy," by Bernard Bosanquet; "Proclus and the Close of Greek Philosophy," by F. C. Conybeare, Fellow of University College, Oxford; "The Psychology of Sport and Play," by A. M. Ogilvie; *Symposium*: "The Nature of Force," (1) by G. Johnstone Stoney, F. R. S., (2) by Professor Alexander Bain, LL. D., (3) by Professor W. R. Dunstan, M. A. Mr. Bosanquet's essay on *Aesthetic in the Growth of Modern Philosophy* is an able piece of work. Although a very minor matter, we are glad to see Dr. Stoney divide the word *noëmenal* into four syllables thus: *noëmenal*; our readers will remember the discussion in *The Open Court* with reference to this syllabic distinction.

The interest of the general reading public is becoming more and more aroused to the importance of psychological investigations, and is a pleasing sign that the popular want of scientific explanations of the isolated facts and phenomena of soul-life is being promptly recognized and responded to by our great magazines. *Scribner's* for March contains a highly instructive and popular résumé of modern researches in the field of plural personality, by Prof. William James, of Harvard, entitled *The Hidden Self*. And *The Century* for the same month publishes a concise and lucid little monograph by Prof. H. C. Wood, on *Memory*. Both essays contain suggestions of value to an understanding of psycho-physiological problems.

The Home Journal, which is undoubtedly familiar to the majority of our readers as an exemplar of literary neatness and simplicity, has shown remarkable good sense in reducing the size of its formerly huge pages to the ordinary large folio measure. *The Home Journal*, which was founded in 1846 by Geo. P. Morris and N. P. Willis, seems assured of a long continued, and merited, success. (New York, 240 Broadway.)

NOTES.

Mr. William R. Thayer, of Cambridge, Mass., contributes to the March *Atlantic* a graphic account of "The Trial, Opinions, and Death of Giordano Bruno." Our readers will enjoy the perusal of this article from Mr. Thayer's pen.

N. B.—*The Open Court* will be sent six weeks, free of charge, upon application, to persons who, before subscribing, desire to become thoroughly acquainted with its objects and work. It will also be sent to persons whose names may be recommended to us for this purpose. Address The Open Court Pub. Co., Chicago, Ill.

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ETHICS AND THE STRUGGLE FOR LIFE.

THIS world of ours is a world of strife. Wherever we turn our eyes, there is war and competition and struggle. Battles are fought not only in human society, but in animal society also; not only in the animal kingdom, but in the plant kingdom; not only in the empire of organized life, but in the realm of inorganic life—between the ocean and the land, between water and air, among minerals, and among the different formations of mineral bodies, among planets and planetary systems, among suns and clusters of suns. Strife is identical with life, and struggle is the normal state of actual existence.

We can easily understand that a superficial observer of nature will feel inclined to look upon life as a chaotic jungle without rhyme or reason, in which the wildest hap-hazard and fortuitous chance rule supreme. A closer inspection, however, will show that there is after all order in the general turmoil and that a wonderful harmony results from the conflict of antagonistic principles. Nay, we shall learn that all order proceeds from the antagonism of factors that work in opposite directions. It is the centrifugal and centripetal forces that shape our earth and keep it in equilibrium. It is attraction and repulsion that govern the changes of chemistry. Gravitation throws all things into one centre, and radiation disperses the store of energy collected in that centre. And the same antithesis of hostile principles manifests itself in love and hate, in surfeit and hunger, in hope and fear.

There are many people who are not satisfied with this state of things. They dream of a paradise where there is no strife, no war, no conflict; where there is eternal peace, unmixed happiness, joy without pain, and life without struggle. Whenever you try to depict in your imagination such a condition of things, you will find that a world of eternal peace is an impossibility. The world in which life does not signify a constant struggle is not a heaven of perfection (as is imagined), but the cloudland of Utopia, an impossible state of fantastical contradictions. Should you succeed in realizing in imagination the dream of your ideal of peace without inconsistency, it will turn out to be the Nirvana of absolute non-existence, the silence of the grave, the eternal rest of death.

Natural science teaches that hate is inversed love

and repulsion inversed attraction. Annihilate one principle and the other vanishes. Both principles are one and the same in opposite directions. Thus they come into conflict and their conflict is the process of life. Science does away with all dualism. The dualistic view appears natural to a crude and child-like mind. The Indian might say that heat is not cold and cold is not heat, yet the man who learns to express temperature by the exact measurement of a thermometer must abandon the duality of the two principles. Monism is established as soon as science commences to weigh and to measure. The divergence in the oneness of existence creates the two opposed principles, which are the factors that shape the world, and the encounter of conflicting factors is the basis from which all life arises with its pains and joys, its affliction and happiness, with its battles, defeats, and victories.

The world being a world of struggle, life teaches us the lesson that we live in order to fight; we must not blink at this truth, for we cannot shirk the combat. Ethics, accordingly, if it is true ethics, and practical ethics, must above all be an ethics of strife. It must teach us how to struggle, how to fight, how to aspire. In order to teach us the *how*, it must show us the goal that is to be striven for, and the ideal which we should pursue.

The progress of civilization changes the weapons and abolishes barbaric practices; yet it will never abolish the struggle itself. The struggle will become more humane, it will be fought without the unnecessary waste which accompanies the rude warfare of the savage, but even a golden era of peace and social order will continue to remain an unceasing strife and competition. You cannot abolish competition even in the most complete co-operative system. There will always remain the struggle for occupying this or that place, and the competition for proving to be the fittest will continue so long as the world lasts; and it is the plan of nature to let the fittest survive.

There are ethical teachers who imagine that the purpose of ethics is the suppression of all struggle, who depict a state of society where there is pure altruism without conflicting interests, a state of mutual love, a heaven of undisturbed happiness.

The ethics of pure altruism is just as wrong as the ethics of pure egotism. For it is our duty to stand

up manfully in battle and to wage the war of honest aspirations. It is the duty of a manufacturer to compete with his competitors. It is the duty of the scholar, the philosopher, and the artist to rival the work of his co-laborers; and the progress of humanity is the result of this general warfare. Organized life from its lowliest beginnings developed higher and higher by a continued struggle; and it is not the victor alone to whom the evolution of ever higher and higher organisms is due, but to the vanquished also. The victor has gained new virtues in every strife, and it is the brave resistance of the vanquished that taught him these virtues.

There is an old saga of a northern hero, to whose soul, it is said, were added all the souls of the enemies he slew. The strength, the accomplishments, the abilities of the conquered became the spoils of the conqueror; and the spirits of the slain continued to live in the spirit of the victor, and made him stronger, nobler, wiser, better. This myth correctly represents the natural state of things, and we learn from it the great truth, that our efforts, even if we are the unfortunate party that is to be vanquished, will not be in vain; our lives are not spent in uselessness, if we but struggle bravely and do the best we can in the battle of life. Furthermore, we learn to respect our adversaries and to honor their courage. We are one factor only on the battlefield, and if our enemies existed now, we would not be what we are. We are one part only of the process of life and our enemies are the counterpart. Any contumely that we put upon them in foolish narrow-mindedness, debases and degrades ourselves; any dishonesty that we show in fight, falls back upon ourselves. It will injure our enemies, as was intended, but it will do greater harm to ourselves, for it will disgrace us; and our disgrace in that case will outlive the injury of our enemies.

Ethics teaches us that all struggle must be undertaken in the service of a higher and greater cause than our egoistic self. He alone will conquer who fights for something greater than his personal interests; and even if he be vanquished, he will still have the satisfaction that his ideal is not conquered with him. He will find successors to continue his work. His ideal, if it be a genuine ideal, will rise again in his successors and they will accomplish a final victory for his aspirations.

The Teutonic nations,—the Anglo-Saxons, the Franks, the Germans and their kin,—are, it appears, in many respects the most successful peoples in the world, because of their stern ethics of undaunted struggle to which they have adhered since prehistoric times. It was no disgrace for the Teutonic warrior to be slain, no dishonor to be vanquished; but it was infamy worse than death to be a coward, it was a disgrace to gain

a victory by dishonest means. The enemy was relentlessly combated, may be he was hated, yet it would have been a blot on one's escutcheon to treat him with meanness. It was not uncommon among these barbarians for the victor to place a laurel wreath upon the grave of his foe, whom in life he had combated with bitterest hatred. There is an episode told in the *Nibelungensaga* which characterizes the ethical spirit of the combativeness of Teutonic heroes. Markgrave Rüdiger has to meet the grim Hagen and to do him battle. Seeing, however, that his enemy's shield is hacked to pieces, he offers him his own, whereupon they proceed to fight.

The moral teacher must not be blind to the laws of life. Ethics must not make us weak in the struggle for existence, but it must teach us the way to fight and must show us the higher purpose to be realized by our struggle.

Naturalists give us most remarkable reports about the degeneration of those organs and their functions and abilities which are not used. If man could live without reason, without education, language, without reason, mankind would soon degenerate into dumb brutes.

Do not attempt to preach a morality that would deprive man of his backbone. Man acquired his backbone because in the struggle for life he had to stand upright, thus to keep his own. If it were possible at all to lead a life without struggle, the backbone of man would soon become a rudimentary organ. But as it is not possible, those men alone will survive that are strong characters, that stand upright in the struggle and fight with manly honesty and noble courage. The men with a moral backbone alone are those to whom the future belongs.

Ethics must teach us how to struggle; it must not hinder us in the combat but help us. And ethics will help us. Ethics demands that we shall never lose sight of the whole to which we belong. It teaches us never to forget the aim which humanity attains through the efforts of our conflicting interests; it inculcates the lesson to do our duty in the battle of life, not only because this is required by our own interests, but because it is the law of life that we have to obey. By a faithful obedience to the ethics of the struggle for life, we shall promote the welfare of mankind and contribute to the enhancement of human progress.

FROM MY ROMAN NOTE-BOOK.

BY MONCURE D. CONWAY.

I.

THROUGH a valued friend, a French priest, well acquainted with my heresies, I received an invitation to "assist" at the Consistory in the Vatican, December 30, 1889. The only conditions imposed were that my

ladies should appear in black, with veils for bonnets, and I in evening dress, with white cravat. I did not attend in any antagonistic spirit. On my way to the Vatican I almost wondered that no "survival" of the horror of "Romanism," in which I was nurtured, gave any stir within me. But my cab happening to be blocked in front of Hadrian's castellated mausoleum, I gazed on the great bronze archangel above it, sheathing his sword after the plague he was supposed to have caused, and found in it a symbol of the sheathed sword of papal dominion. The temporal power is forever sheathed, however compulsory the scabbard. When the battle is over the victors may fairly indulge themselves in magnanimity. Those who fear that the sword may be unsheathed again, may keep their weapons. Having no such fear I throw mine away. To-day, I said, bygones shall be bygones. To-day, freedom is even less liable to be harmed by Catholicism than by Protestantism; and apart from political freedom, where is the advantage? Why should I prefer Jehovah to Mary, or the bottomless Pit to Purgatory?

However, I was presently reminded that it was not to a manifestation of the religious side of Catholicism that I had come, but to a momentary "materialization," as the spirits say, of the defunct Temporal Power. My sympathetic sentiments were indeed somewhat chilled as I entered by the "royal stair" into that "Royal Hall," between files of soldiers, armed with muskets, pikes, and swords. But I presently recovered equanimity on observing that all the weapons were antiquarian, and the uniforms antiquarian. They did not "mean business." It was a sort of masquerade. Nay, was I not myself in full evening dress, at ten in the morning, as if just from a ball? So I examined the upheld swords. Some were two yards long, or more. They had quaint hilts, crosswise, jeweled, and among the curious was a crooked one that seemed to represent the Sword of Flame. No doubt each has its history, and may have symbolized the submission of some proud prince. The pikes had crooked axes a half yard from the point, and were upheld by men in striped raiment, something like the "beefeaters" who make picturesque exhibitions at the Tower of London. The "Swiss Guards" are on hand, but very meek as contrasted with their old days—which I can remember—when they were prompt to handle roughly any poor pious wight who might be kneeling in the path of a pontifical procession. There was a gallery for the ambassadors commissioned to the Pope,—Spanish, French, Spanish. But they were all behind Sir John Simmons, the only protestant representative. He is here because England has Catholic dependencies,—Ireland and French Canada,—but his office has yet to be passed on by the Commons, and he has no establishment; he boards at a hotel. The real Ambassador, to the king,

is on the floor with the rest of us, in evening dress, his wife and daughter being in one of the two tiers of ladies in black—who appear as if at a funeral. On looking and listening around me I perceive that the majority of the guests are English and American tourists, no doubt mainly protestants. We are in the place of the princes once received in this "Royal Hall" by the mighty Pontiff.

We stood patiently for nearly an hour. Then the papal procession began to enter. The choristers in scarlet and white filed into their places. Then there were Cardinals in ermine and scarlet, with long purple trains borne by pages, and red satin skull-caps; then Bishops in purple and lace. Finally two mighty fans of white feathers floating at the top of velvet-covered poles are visible; between them is the throne, borne aloft on the shoulders of men, and on it seated Leon XIII, the white old man whom the Catholic world calls Holy Father.

The first thing that impressed me was the pathos of it all. This thin man of eighty years, whose life is prolonged only by constant precautions, appeared so lonely up there in the air! Him no tender arm of wife or daughter awaits, when, exhausted and ill, he returns to his solitude. He waves his benediction on the company beneath him with hands half covered with white mittens, and light flashes down from his huge seal ring, set round with large diamonds. This is the ring of his wedlock,—wedlock of the Church as Bride, and the heavenly Bridegroom. Our very evening dresses and white cravats are now supposed to be sanctified. Some pious ladies are said to have carried many rosaries, to be afterwards presented to their friends as having been blest by the Pope.

The Cardinals and Bishops have taken their places in the reserved enclosure, and bend low as the Pope is borne past them. He is let down gently, and supported to a larger throne. Then they all take their seats, like the lords spiritual and temporal in the British House of Lords, and the choir breaks out with a triumphant anthem. Meanwhile the Pontiff sits still, and with his brilliant robes, and his triple crown, reminds me of certain Hindu deities that I have seen in their temples. The music ended, the work of the day proceeds. Three Cardinals are to be created—all from the "secular clergy"—that is, belonging to no Order. One of these is Monsignor Richard, Archbishop of Paris; another is Monsignor Foulon, Archbishop of Lyons; the third is the Austrian, once eminent as General Shoenborn. This third one alone is a striking figure,—a tall, handsome, Bismark like personage. His air is military, and one cannot help wondering that such a man should become a Cardinal. He was engaged in the mortal struggle at Sadowa, and was one of the only two offi-

cers of his regiment who survived. Then he became a priest, and ultimately Archbishop of Prague.

The Secretary reads some official document; a Cardinal recites a prayer; the *Te Deum* is sung. The Pope's shoe is removed. The new Cardinal approaches, and is presented by the Pope's hand with a brimless crown-shaped hat of bright red satin. This is held by an attendant over its possessor's head as he bends to kiss the Pope's foot, then rises to kiss the Pope's hand. The Pope then embraces the new Cardinal, kissing him on both cheeks. This being thrice repeated the ceremonies of the Royal Hall are over. With some evidence of feebleness the Pope reaches the throne on which he entered, and is borne out as he came, again waving benedictions on us with unconsciously graceful movements of his hand. I had a better opportunity of observing his face. He has a large aquiline nose, curving over a sweet but melancholy mouth; his chin is weak, his eyes are blue and frank; his brow is not strong, but there is a scholarly look about him, as if he read much.

As the Pope floated out I remarked on the back of his aerial throne the papal arms, richly wrought, and a sun with rays worked in gold and silver. This recalled the well-known incident which occurred at the close of the Convention in Philadelphia, in 1787, which framed our Constitution. As Washington was leaving the chair in which he had presided over the Convention, Franklin approached and pointed to the image of the sun carved on its back. He said that at various junctures of the debates he had wondered whether it were a rising or a setting sun. "But now," he added, "I feel certain that it is a rising sun."

It is a terrible ordeal these prelates have to endure in marching beneath critical eyes, without the shield of any beard or of any hat. Every line of the shaven face comes out; the thick lip, the sensual touch, the double chin, the bovine neck, the corvine nose, are visible here and there, contrasted with other faces with touches of beauty and spirituality. But I must admit that the Cardinals as a body did not impress me so favorably as the Bishops. Perhaps it was that every expression of humility is lost under the loudness of such raiment.

After conducting the Pope to his apartments the prelates and cardinals and choir returned, moved through the Royal Hall, and we followed them into the Sistine Chapel. There was a brief service, which included some grand singing,—for a good voice is essential for a prelate. I found myself standing immediately beneath Michael Angelo's great ceiling pictures,—Eve received by the Almighty as she emerges from Adam's side; Eve and Adam receiving the apple offered by the serpent, which has the face and breast

of a beautiful woman (Lilith); Eve and Adam driven out of Paradise. The service was carried on at an altar on the wall otherwise completely covered by the greatest mural painting in the world—Michael Angelo's Last Judgment. In the lower corner is pictured a Cardinal, girdled by a serpent,—this being the artist's punishment of the prurient prudery which wished to drape his pictures. The figure of Jesus as a ferocious judge, his mother trying to restrain his fury, is there witnessing the tremendous terrors which led to the worship of Mary. I do not wonder that Hawthorne was scandalized by this representation. "I fear I am myself among the wicked," he wrote, "for I found myself inevitably taking their part, and asking for at least a little pity." In other words, Hawthorne did exactly what Mary is doing in the picture; he touches, without realizing it, the secret of Mariolatry. He complains that Jesus should "ever be represented in that aspect," forgetting that it is the scriptural aspect. The fact is that when the Puritans destroyed the idea of the maternal divinity, they rendered inevitable a feminine evolution of Jesus. Hawthorne's Jesus is really a Madonna.

While I am gazing on the grand picture, to which the choir makes a sort of antiphon, the service ends. The three new Cardinals take their stand, in the order of age, at the hither end of a reserved space, and each is greeted with kisses by all the rest. The hand is grasped, and the kiss is on both cheeks. Then they disappear from the public, and are received in secret consistory. Here the papal Allocution is read in Latin. There is also the ceremony, which must be curious, of shutting up the Cardinals. The Pope with his fingers closes the mouths of the new cardinals to indicate that as Cardinals, they are not to talk. As priests (if such they are, for laymen may be Cardinals) they may speak, but nothing that they say is in any case to carry authority or weight as coming from a Cardinal. The kissing of the Pope's foot and hand is thus not an idle ceremony; his Cardinals are to be as his silent bodily members obeying the papal brain.

Leaving the Vatican, I find myself recurring to the gold-and-silver Sun on the throne, and asking Franklin's question—Is it a rising or a setting sun? So far as the Temporal Supremacy is concerned, it is long after Sunset; what we have seen is Afterglow. The Allocution by its very complainings reveals the growing sense of hopelessness. Clearly nothing has been gained to the Church by its irreconcilable attitude towards the State, but something has been lost. The government having found abuses in the administration of charitable foundations,—abuses of a kind that invariably grow around endowments from the Past,—have had to take them in hand, and we adapt them, in harmony with changed circumstances. This

was done in England not many years ago, where it was found that money, bequeathed to the poor in parishes where no poor remain, was enjoyed by the rich. The English Church resisted change, but, when overborne, joined in carrying it out. But now that the Pope has denounced the new law, it is difficult to see how the Church can have any share in the future distribution of these important charities. It would appear imprudent to transfer entirely to the secular hand the credit for alms and bounties hitherto associated by the people with their pastors. If this suicidal policy continue the future of the Church in Italy may be seriously affected. But probably it will not continue. When the present Pope dies—and the hour cannot be distant—there will be a crisis. The Church will have to decide whether its irreconcilable attitude, and a claim of martyrdom which has become stale, are worth what they are costing. It may see in England, in Germany, what good things state churches possess when they consent to temporal subordination, and what vast services they may render to the poor. Much will depend on the next Pope, and perhaps more on these dumb Cardinals.

AGNOSTICISM VS. GnosticISM.

BY PAUL R. SHIFMAN.

[CONCLUDED.]

THIS conclusion* gathers force from a further scrutiny of the language that involves it. In the philosophy of Kant, from which the Editor avowedly has drawn the staple of his own philosophy, the phrases "existence in general" and "things in general" mean respectively, as indeed their words import, *existence in itself* and *things in themselves*; they refer not to phenomena, but to noumena. And yet the Editor, who doubtless knows his Kant by heart, declares in the citation just made that "existence in general," though not subject to the law of causation, "must be accepted as a fact"; in other words, he declares in effect that the unknowable is unquestionable.

And, again "The question itself, as to the cause of existence in general," these are his words, still lingering in the reader's mind, "is not admissible, for the law of causation is applicable to all phenomena of nature, but not to the existence of nature, which must be accepted as a fact." Very well, say we all: but, as the phenomena of nature constitute the manifestation of existence in general, and as the manifestation is under the law of causation and existence in general is above it, existence and its manifestation, contrary to his doctrine, are not one thing, but inevitably two things; of which existence, as free from causation and absolute in certainty, does not admit of being either grasped or

doubted. If existence in general and its manifestation were one, the law of causation obviously would be applicable to the former as well as to the latter; and, hence, in declaring that it is not applicable to existence in general, which notwithstanding must be accepted as a fact, he confesses—nay, proclaims—that this unique reality not only differs from its manifestation, but is an insolvable mystery.

The conclusion gathers fresh force, out of a crowd of other things, from his definition of reality as "the sum total of all that is";* for, as Kant affirms, the "conception of a sum total of reality is the conception of a thing in itself, regarded as completely determined"; and the conception of a thing in itself, *horresco referens*, is the conception of the unknowable. Can it be that monism is based not simply on noumena, but on noumena in the positive sense? Is it possible after all that monism is no other than the beast dualism?

"That which is unknowable in substance," he says, "is unreal and non-existent," continuing: "The whole of reality, with its inexhaustible wealth of problems, lies within the bounds of knowability, while beyond that limit is empty nothingness." The question "as to the cause of existence in general," it would seem, is admissible after all, in his opinion; for, if nothing is beyond the bounds of knowability, the existence to which he refers must lie within them, and must consist of phenomena, to which, as such, the "law of causation is applicable." The question as to the cause of existence whereof this is true, forsooth, not only is admissible, but admits of a ready answer—to wit, the familiar process of which the product is an abstraction. But this is not the kind of existence in question. The existence which is independent of sensation, but on which sensation depends, is not existence in the abstract, but in the concrete—not the mere idea of existence, but something existing—not an abstraction, but a reality: a reality of which the existence is revealed in the kaleidoscope of mind, but which in its proper nature, be that what it may, is impenetrable to thought, as the objects in a kaleidoscope are impenetrable to vision. His averments here, the reader will mark, are mutually contradictory. If existence in general is independent of causation, as he concedes, it cannot consist of phenomena, and does not lie within the bounds of knowability, but must lie beyond them; and if, though lying beyond them, it "must be accepted as a fact," it cannot be "empty nothingness": it must be something, and must be unknowable. That is to say, if the law of causation is not applicable to existence in general, existence in general is incapable of being

* Referring to the preceding sentence, which alleges that the case against agnosticism is surrendered.

* This definition stands at the head of *The Open Court*, to whose Editor I am rejoicing; but in "Fundamental Problems" reality is defined, less aptly, I think, though not less consistently with my argument, as "the sum total of all facts that are, or can become, objects of experience."

known in its causes, and can be known only as a fact; which is the definition of the unknowable.

"We cannot comprehend," he repeats in another relation, "why planets materially exist, and why force exists inseparably connected with matter. The material existence of planets, that their mass endowed with motion exists at all, is a fact." If we cannot comprehend "the material existence of planets," we of course cannot comprehend "material existence" at large; which, accordingly, apart from its mere actuality, is unknowable. If, again, we cannot comprehend "why force exists inseparably connected with matter," we cannot comprehend matter or force; and both, excepting the fact of their existence, are unknowable—not the words, mark you, or the conceptions they signify (possibly all of which the Editor takes account), but the external realities from which the conceptions are drawn. These realities are incomprehensible, he admits: they lie beyond "the bounds of knowability." And yet beyond these bounds, he says, is "empty nothingness." Is then "empty nothingness" incomprehensible? And can that which is incomprehensible be said to lie within the grasp of cognition? What indeed is "a fact" that "we cannot comprehend" but an unknowable reality—a reality known as a fact but not knowable in its causes? Nothing. The recognition of it is agnosticism pure and simple. It is the vice of the Editor's philosophy, as I conceive, that he mistakes the products of ideation for the external realities which give rise to them, and in turn mistakes these realities for nonentities; and this even when, as in the present instance, he stands face to face with the realities in their sublimest forms, and seems to sweep his eye across their measureless breadth, to lift it up to their infinite height, to fix it on their impenetrable depth. His philosophy banishes mystery to enthrone delusion.

The Editor, as befits a good evolutionist, holds that man, in common with all other organisms, is the product of development,—the result of the action, reaction, and interaction of natural forces, which, as the factors originating consciousness, are external to consciousness; so that, as the outcome of his doctrine, we have beyond consciousness an existence which is the source of our existence, but which, nevertheless, is nothing, while we are something. We have all heard of the juggler who climbed a ladder supported by nothing, and pulled up the ladder after him; but none of us, I take it, ever suspected that this audacious drollery is a stock piece on the solemn stage of the universe—the roaring farce that relieves the tragedy of things. *Ex nihilo nihil fit* used to be accounted sound philosophy, but our arch-gnostic has changed all that; in his hands the maxim reads *Ex nihilo aliquid fit*. He unwarily has put the new wine of evolution into the old bottles of pantheism, with the natural re-

sult, this novel version of the time-honored aphorism marking one of the lines of fracture in the shivered bottles. The scriptural warning on this point should not have escaped the attention of so alert and lucid a thinker.

The Editor has a good deal to say about the sum of things—the totality of existence—the All, with a big *A*; which, we may be sure, he brings somehow (satisfactorily to himself) within the limits of the knowable. The steps in this particular instance, it turns out, are only two. He assumes, first, that nature has nothing in any of its parts, extensive or intensive, that is essentially different from the part of it accessible to human comprehension—which assumption, by the way, begs the question in dispute; and, secondly, that the infinite is another name for the indefinite. Grant these two assumptions, and the wide world passes into the confines of the knowable, as the huge Afrite in the Arabian tale entered the fisherman's bottle. But these assumptions cannot be granted. He does not consistently stand by them himself. In admitting that sensation is different from the external reality producing it, he admits that every part of nature has something not comprehensible by man; and, when he looks up at that starry heaven which so kindled and awed the imagination of Kant, he must tacitly recognize that the indefinite is neither the infinite nor a real copy of it. Still, he makes these assumptions, and attempts to maintain them.

"The infinite," he says, "is a symbol for a mathematical process. When I count, I may count up to a hundred or two hundred, to a thousand or to a million, or to whatever number I please. If I do not stop for other reasons, I may count on without stopping—in a word, into infinity." Here we have both assumptions, taken in the airiest manner, the suggestion being that what man does not understand is as understandable as what he does understand, and that all he has to do to comprehend the sum of things is to go on knowing and to know, as far as he pleases, and whenever he stops, though but from weariness or caprice, he may congratulate himself that he sees through the All, or as much of it as he likes, which is the same thing; it is as easy as counting, or lying. "This will never do."

One may realize the indefinite by stopping when he pleases; but, if he would realize the infinite, he must go on forever, which would be likely to put a finite being to his shifts. The indefinite admits of limit, conditional, though not unconditional; but the infinite admits of no limit, conditional or unconditional. Our gnostic's free and easy logic, if he will pardon me, misses fire. He aims at the infinite, but brings down only the indefinite; the infinite remains safely perched in its cosmic eyrie.

"Infinitude is never an accomplished process," he

tells us. It is never a process at all, but always a property, abstracted from infinite things; it is not a process, but the product of a process, and of a perfectly accomplished one. Trying to count "into infinity," however, were anybody mad enough to try it, would be a "process," and undeniably "never an accomplished process"; seeing that it would take infinite time to accomplish it.

He appears to look down on the infinite as "a mathematical term." Yes, it is a term in mathematics; it is also a term in philosophy; and, what is more to the purpose, it has the same meaning in both. Whether applied to quantity or being, it means that which is greater than any assignable thing of the same kind. And surely a thing is not to be made nothing of because it is so great as to have no conceivable limits. It may be suggested, as Spinoza held, that the infinite *suo genere* is not the absolutely infinite; but, in respect to existence, this distinction is lost, the infinite *suo genere*, as comprehending all possible modes of infinity, being also the absolutely infinite.

The infinite he also calls an "abstract idea." It is an abstract idea, to be sure; but it is abstracted from realities—infinite space, infinite time, and, above all, the infinite existence that fills both. Infinity is an abstraction, but infinite existence, the Editor himself being judge, is the synonym of reality—the All of monism.

"We look upon the forms of our existence," he says, "as upon a specimen, so to speak, of the forms of existence in general." Here, once more, I may note, he recognizes, in Kantian phrase, existence in itself, taking its reality for granted, and going so far as to hint at the possibility of bringing it within the bounds of the knowable; but this in passing. The forms of infinite existence, to return, are themselves infinite, if we may reason on the matter at all; for the properties of a thing partake of its nature, and to assume that the forms of the infinite are finite would be to abolish the infinite. A specimen, furthermore, presupposes a class of things like itself, to which it belongs, and of which it is a representative; but finite forms do not belong to the class of infinite forms, and for this reason cannot be specimens of them. The minutest part of a parabola, indeed, represents the whole, though produced to infinity, but only because the property of a parabola is assigned by definition, and belongs entire to every point in the curve. As, however, existence does not receive its properties from definition, or pack them in barren points, whose endless iteration develops no new property, we are not at liberty to assume that we know all the properties or the whole of any property even of finite existence, far less that the complex of these properties undergoes no change in the forms of infinite existence. The notion

that infinite existence is merely finite existence infinitely repeated has no ground in reason. It would be equally admissible, saying the least, to hold that infinite existence is finite existence changed qualitatively, as it were, by means of infinite quantification—finite existence not infinitely extended but infinitely transformed. But no particular predication of infinite existence is legitimate; infinite existence is unknowable, and that, once ascertained, ends the question. To pursue it would be to go astray, without star or compass, in the night and chaos of self-contradiction.

Wherefore, infinite existence, unlike tea or wheat, cannot be sampled. We know that it is; but what it is we know not, and by the constitution of our faculties are incapable of knowing. It lies beyond the possible grasp of cognition. The simple transcendence of this awful something—its existence beyond consciousness, and independent of consciousness—would paralyze comprehension; but when to its transcendence we add its infinity, and superadd its absoluteness, the most confirmed gnostic, even of the monistic species, must begin to suspect, one would think, that there is something in heaven and earth not dreamt of in his philosophy.

It is time to close. But in closing I must do myself and the Editor of *The Open Court* the justice of paying afresh the tribute of my admiration to his rare excellence as a writer. The energetic yet easy play of his faculties, the massive simplicity of his style, the mingled sympathy and reverence of his tone, his imperturbable temper, and his masterly lucidity, are above praise. Even his errors, or what I hold to be his errors, are more improving than the truths of most writers. I must not forget, however, that I am closing.

My summary shall be short; and, to this end, partially *ad hominem*. Monism is founded on the oneness of the All. As the sum total of reality, the All is transcendent; as illimitable in space and time, it is infinite; as dependent on nothing outside of itself, it is absolute. Transcendent, infinite, absolute, the All, by this triple token, is the Unknowable; on which, such being the case, monism rests as its foundation. And so the leopard of agnosticism, fulfilling in a way the roseate prophecy of Isaiah, lies down with the kid of gnosticism—the latter inside the former. "Let us have Peace."

ONTOLOGY AND POSITIVISM.

THE basal idea of Positivism or Positive Monism is that it takes its stand on facts; and there is unquestionably no thinker of the present age, who is imbued with the scientific spirit of the time, that would offer any objection to this principle. Yet former philosophies did not take the same ground. They tried to find a footing in empty space; they attempted to explain

facts by deriving them from some abstract conception that they postulated. Their favorite starting-point was the idea of abstract existence. Hence their method is called *ontology*, which may be translated as meaning "thought-structures of abstract existence." The vaguer the broader, the more general and metaphysical this abstract conception was, the deeper and profounder an ontological system appeared to be, and the more it was appreciated by the astonished public.

One of the ablest, and certainly the most famous, among ontologists was Hegel. Hegel started with the abstract idea of being or existence in general, and claimed that this concept in its emptiness was identical with non-existence. Abstract being, he said, is at the same time an absolute negation of concrete being; it is pure nothingness. These two concepts accordingly are in one respect absolutely identical, in another respect absolutely contradictory. Each one disappears immediately into its opposite. The oscillation between both is the pure becoming, *das reine Werden*, which, if it be a transition from non-existence to existence, is called *Entstehen*, "growing, originating, waxing," and if it be a transition from existence to non-existence, is called *Vergehen*, "decrease, decay, waning." Having arrived, by this ingenious method of philosophical sleight of hand at the concept of Becoming, Hegel's ontology touched bottom. From the Utopia of non-existence, above the clouds, he got down to the facts of real life; and here he applies to everything the same method of a *thesis*, an *antithesis*, and the *combination* of both.

We would be obliged to go into detail if we intended to show how truly grand was the application of his method to logic, to history, to natural science, to art, to æsthetics, to religion, and to theology. Here is not the place for doing this. Yet, while objecting to the ontological method, we wish incidentally to emphasize the fact, that Hegel was one of the greatest, boldest, and most powerful thinkers of all times, whatever his mistakes may have been, and from whatsoever standpoint we choose to look upon his philosophy.

Ontology starts from abstract ideas and comes down to facts. Positivism, on the contrary, starts from facts and rises to abstract ideas. Abstract ideas, according to the positive view, are derived from and represent certain general features of facts. Ontology is bent upon explaining the existence of facts from non-existence, and ontologists therefore regard it as their duty to bridge over in their imagination the chasm between nothingness and something. Positivism does not require such mistaken procedure. It takes the facts as data and possesses in their existence the material out of which rise the sciences and philosophy. Philosophy is no longer a pure thought-structure of

abstract being, but a general survey of the sciences as a conception of the universe, based upon experience.

Ontological systems did not disappear and lose their influence over mankind suddenly, but dissolved themselves first into a state of philosophical despair. The uselessness and sterility of the ontological method were more and more recognized and found their philosophical expression in agnosticism.

Agnosticism is the most modern form of the obsolete method of ontological philosophy. The agnostic philosopher has discovered a concept that is broader and vaguer even than that of "existence in general." This concept is the Unknowable. Something that is real and at the same time absolutely unknowable is a self-contradiction. But never mind. That makes the idea the vaguer and it will thus be more easily turned to advantage. Agnostics are never afraid of arriving at self-contradictory statements, at unknowabilities, or at insolvable problems—these three terms mean the same thing—for they are just the things they believe in.*

Positivism regards the construction of philosophy upon abstract ideas as idle effort. Instead of coming down from an abstract conception as if it were out of a balloon to the solid ground of facts, positivism takes facts as its data. It starts from facts and arranges them properly in good order. It derives its abstract conceptions not by a theological revelation nor by intuition and metaphysical inspiration, but by the method of mental abstraction. And it discards all those abstract conceptions which have not been derived from facts. Philosophical knowledge is not at all a going beyond facts, but it is the proper and systematic arrangement of facts, so that they do not appear as incoherent single items without rhyme or reason, but as one intelligible whole in which every part appears in concord with every other.

The principle of Positivism, certainly, is very simple, but its application is by no means easy. Even the mere statement of facts requires much care and exactness, while their systematic arrangement as scientific knowledge is the privilege only of a few exceptional thinkers.

What are facts? Facts are all the events that take place; the thoughts and acts of living beings as

* Agnosticism blindfolds us in clear daylight. I wish every agnostic would read the following passage from our great American Logician, C. S. Peirce: "One singular deception, which often occurs, is to mistake the sensation produced by our own unclarity of thought for a character of the object we are thinking. Instead of perceiving that the obscurity is purely subjective, we fancy that we contemplate a quality of the object which is essentially mysterious; and if our conception be afterward presented to us in a clear form we do not recognize it as the same, owing to the absence of the feeling of unintelligibility. So long as this deception lasts, it obviously puts an impassable barrier in the way of perspicuous thinking; so that it equally interests the opponents of rational thought to perpetuate it, and its adherents to guard against it."—(*The Illustrations of the Logic of Science*. (See *Popular Science Monthly*, 1877, p. 291.))

well as the motions of not-living things, great and small; the oscillations of atoms and the movements of suns; in short all natural processes that happen. The central fact among all other facts is to every one the activity of his own consciousness. This central fact, however, must not be supposed to be either the ultimate fact or the simplest fact. To call any fact ultimate is not justifiable, because if any single fact among facts is ultimate, all facts are ultimate. Facts, if they are facts at all, are equally real; their reality cannot be regarded as of a greater or less degree. To look upon consciousness as a simple fact would imply that it is eternal, which is contrary to our experience. Consciousness is a very complicated fact; it is the sum of many smaller facts and must be supposed to be the result of a co-operation of innumerable processes.

This, however, is stated only incidentally in opposition to certain philosophers who believe in the simplicity of consciousness and build upon this hypothesis a grand philosophical system called idealism. For our present purpose, in considering consciousness as the central fact among all other facts, it is of no consequence. It is here sufficient to state that consciousness being to every one of us the basis of our knowledge of facts, need not at all be the originator of facts; being the centre of our intellectual world, it need not at all be an indivisible unit or a mathematical point. Facts are stated as facts when they are represented in consciousness, and the means by which facts are represented in consciousness are sensations. This is to say: The philosophical problem according to positivism is the arrangement of all knowledge into one harmonious system which will be a unitary conception of the world and can serve as a basis for ethics.

A unitary conception of the world implies and presupposes the idea of a continuity of nature, which, it is true, has not as yet been proved in all its details. Nevertheless, it is more than simply probable. The continuity of nature is the indispensable ideal of science; every progress of science is, rightly considered, nothing but an additional evidence of the truth that nature does not contradict herself; she is continuous and self-consistent. There are no facts, proven to be facts, that can overthrow the ideal of a continuity of nature. Therefore, the solution of the problem to construct a unitary system of knowledge, we most emphatically declare, is not only possible, it is also necessary, it is an indispensable duty of man as a thinking being; and its realization is the very life of science. If a systematization of knowledge were impossible, science would become impossible, and philosophy would be resolved into useless vagaries.

To sum up. The philosophical problem, accord-

ing to ontology, is to derive existence from non-existence. Agnosticism, finding the problem of deriving something from nothing insoluble, declares it to be an inscrutable mystery. Positivism maintains that the problem is illegitimate. Taking its stands upon facts, positivism can dispense with the *salto mortale* of ontology.

P. C.

POSITIVE SCIENCE VERSUS GNOSTICISM AND AGNOSTICISM.

IN ANSWER TO MR. SHIPMAN'S CRITICISM "AGNOSTICISM VS. GNOSTICISM."

I. WHENCE COME FACTS?

FACTS, we declare, are the data of knowledge; and the existence of things, the existence of nature, must be regarded as a fact. Here Mr. Shipman thinks that he has got me in a fix. Whence do we get the facts?

The law of cause and effect applies to things only, i. e., to the forms of existence, but not to existence in general, as I admit. Ergo, Mr. Shipman declares, existence in general is one thing and its manifestation another: existence in general is free from causation, is absolute and unknowable, while the manifestations of existence, its forms, are knowable.

The law of cause and effect, as defined and explained in *Fundamental Problems*, is the formula under which we comprise all the changes that take place in the world of actual existence. The law of cause and effect does not explain why matter exists or why energy exists, but it explains how and why one form changes into another form.

The law of cause and effect does not admit of any other application; for instance, it cannot be applied to the question "Why is there any existence at all?" We can trace the chain of causes and effects up to a special, for instance the present, state of things, and we can comprehend why things and their arrangements are as they are, but to search for a cause of their existence at large, why they materially exist at all is illegitimate. To comprehend material existence in this way is impossible, because it is inadmissible. There is, however, no concession on my part, no admission, as Mr. Shipman declares.*

The law of cause and effect applies to changes of form and as soon as we apply it otherwise, we must in the end arrive at contradictions—which in my mind do not prove the dogma of agnosticism, but are a sign that there is something wrong in our logic. The law of cause and effect is often erroneously applied to abstract conceptions. But it is wrong to speak of the cause of "whiteness" or the cause of "the existence of the world in general." I can investigate the cause that made a thing white; and I can explain the reason why a certain thing now appears to us, for instance, as white. But there is no cause of "whiteness in general." I can explain the process by which we arrive at the conception of whiteness. But the application of the concepts cause and effect to abstract ideas (as I employ the term *cause*) is as nonsensical as if I should speak of the undulations of goodness, or the heat of

*Mr. Shipman's quotation that "we cannot comprehend why planets materially exist," etc., makes a different impression when considered in its context. Six lines above the quoted passage we read, on p. 121: "There is nothing to be comprehended in existence in general. It is a matter of experience simply, to be stated as a fact. By the form, for instance, of planets, we understand their shape as globes (or rather as spheroids); by the form of their motions we understand their paths, which are conic sections. We cannot comprehend why planets materially exist, and why force exists inseparably connected with matter. The material existence of planets, that their mass endowed with motion exists at all, is a fact; but their existence as planets, why they exist as spheroids, and why they travel in paths of conic sections can very well be comprehended."

straight lines, or the changes of form that mathematical points undergo. The question how the different forms of existence came about, how they were caused, is legitimate; but the question as to the cause of existence in general is illegitimate.

But, given facts as the data from which philosophy and science start, and recognizing that they must come from somewhere, the question still remains, How do facts or how did facts originate?

This question may be viewed in two different ways:

(1) How is the present state of the world to be explained from a former state? Especially, How did its complicated cosmic harmony and manifold variety of form come about? and

(2) How is it that things exist at all? Why is there existence instead of non-existence? Why is there something instead of nothing?

These are the two interpretations of which the question "Whence come facts?" admits. In the former shape the question has found its scientific answer in the Kant-Laplace hypothesis of the origin of the solar system and in the Lamarck-Darwinian theory of evolution which was devised to account for the origin of species. In the latter shape the question has also found a scientific answer. The answer is formulated in the law of the conservation of matter and energy. The answer is that matter and energy are indestructible and uncreatable; they are eternal. "Eternal" does not signify anything mysterious or incomprehensible; it simply denotes something that exists, that has existed, and that will continue to exist.

No other answer can be expected to the question "Whence do facts come?" Mr. Shipman does not seem to consider the law of the conservation of matter and energy a sufficient solution of the problem. He would fain make us believe that the substitution of something unknowable is an answer more satisfactory than the law of the conservation of matter and energy. But it is not. The Unknowable explains nothing; and if one adopts the positive conception of philosophy, the Unknowable becomes quite a superfluous idea, which can most easily be dispensed with—nay more easily than it can be accepted. There is no place for it in a system of positive philosophy.

II. MYSTERY AND DELUSION.

Mr. Shipman says:

"It is the vice of the Editor's philosophy, as I conceive, that he mistakes the products of ideation for the external realities which give rise to them, and in turn mistakes these realities for non-entities; . . ."

I do not mistake the products of ideation for external realities. On the contrary, I have repeatedly declared that ideas are representations of things. Metaphysical essences and absolute existences are all that I have declared to be non-entities. The banishment of mystery, in my mind, is the main duty of science and philosophy, and I am not at all astonished that a mystic looks upon the attempt to expel mystery as a delusion.

III. THE SOURCE.

Mr. Shipman sums up the outcome of my doctrine in the following statement:

"We have beyond consciousness an existence which is the source of our existence, but which, nevertheless, is nothing, while we are something."

This is simply a gross misstatement. I never said anything like it. I mentioned the word source in one connection only. I said there is no source of existence—no source of the universe. The story of "the juggler who climbs a ladder supported by nothing and pulls the ladder after him," is applicable not to positivism but to that class of philosophers who in search for a source of existence find themselves urged to search further for a source of the source and so *ad infinitum*.

IV. THE THINKING SUBJECT A PART OF NATURE.

Mr. Shipman seems to suppose that the thinking subject is essentially different from the rest of nature. At least he objects

to "the assumption" that the thinking subject is a part of nature, and that the form of the thinking subject is, as it were, a specimen of the form of nature. He does not disprove my position. So I need not take the trouble to refute his view.

V. THE INFINITE AND THE INDEFINITE.

The infinite is by no means another name for the indefinite. Mr. Shipman, it appears, in declaring that I had said it is, did not understand the solution of the question as proposed in *Fundamental Problems*. The two conceptions, the infinite and the indefinite, are quite distinct. It is not my logic that is "free and easy," but Mr. Shipman's presentation of my views.

The infinite is a symbol to signify a process without a limit. If I count up to a hundred or to a thousand and stop there, I do not reach the infinite. I never said that I reach it by stopping indefinitely, as Mr. Shipman declares. Only, if I count on without stopping, I call the process infinite.

Infinity is not a thing, it is not an object; it is a process without a limit. A process carried on without a limit, is never finished, it is never a round, compact, concrete reality, but is conceived as being in a course of constant progress.

Mr. Shipman tells us that the infinite is "a property abstracted from infinite things." I must confess, (1) that I never met with an infinite thing in my life, and (2) that I do not believe in the existence of infinite things. Time and Space are infinite to be sure; but time and space are not things; and infinity is not abstracted from Time and Space, but attributed to them. Space is not, as metaphysical philosophers imagine, a large box possessing the inexplicable property of infinity, and containing the world within it. Space is the possibility of motion in all directions. If the point *A* moves in a straight line, it is possible for it to continue to move without stopping. We can imagine the process to be continued without a limit. The same holds good for every line in every possible direction. This is all we can mean by the idea that space is infinite.

It is the same with Time. Metaphysical philosophers imagine that Time is a mysterious something in which all events and happenings take place. But Time is not a thing. It is no more a thing than Space is.

We observe changes taking place around us. Time is nothing but a measure of these changes. We employ as measures such changes as appear most regular, such as days and years. But there is no time apart from changes. Since we can imagine that some changes will always take place, and, even if they did not take place, since we could measure the time of a supposed rest by some certain measure, (days, years, millenniums, billions, etc.), we say that Time is infinite. This is all that we can mean by the idea that Time is infinite.

If Mr. Shipman means by "infinite existence" the truth that existence will continue to be existence into infinity, (viz., infinite time, or eternity), I gladly adopt the term. If he means that existence in its extension is infinite, I must hesitate to adopt it. If the infinite extension of existence means something immeasurable to us with the means of measurement at our command, I have also no objection. But if it means that the amount of energy and of matter in the sum total of all the sidereal systems of the universe is absolutely infinite, I must ask Mr. Shipman on what ground he makes such a bold assumption.

VI. KANT AND DUALISM.

Mr. Shipman's quotation from Kant proves that the latter believed in things in themselves. I know very well that Kant has a phase in his development which is thoroughly dualistic. But we are not discussing Kant here, so I waive the point.

VII. ARE THINGS IMPENETRABLE TO THOUGHT?

Mr. Shipman says: "The existence of reality is revealed in the kaleidoscope of mind, but its proper nature, be that what it may, is

impenetrable to thought, as the objects in a kaleidoscope are impenetrable to vision."

This simile throws light upon the difference between Mr. Shipman's conceptions and mine. I do not want either thought or vision to penetrate things. It would be but consistent with Mr. Shipman's agnosticism to declare that things are invisible. We see the outside of things only, and therefore objects are impenetrable to vision.

If Mr. Shipman's expression, "things are impenetrable to thought," is used in a figurative sense, meaning thereby that we cannot see in our mind the inside of things and the laws that describe* their formation (indeed, it can not be interpreted in any other sense), the idea is as untrue as that science is identical with ignorance.

We cannot look into the inside of people; yet a good physician who is not an ignorant quack but combines knowledge with ability and sound judgment, can and does penetrate with his thought into the organs of his patient. What would be the value of science, if that were not so!

A philosophy that levels all degrees of wisdom to the miserable *ignorabimus*, will come to the rescue of quacks and comfort their conscience with Solomon's great saw: "All is vanity! Knowledge is vanity! Wisdom is vanity!"

Does not the botanist see more in a tree than people ignorant of the wonders of plant-life? Do not our thoughts penetrate into the ground and do we not know that the roots are there that nourish the tree? Does not the mind of the scientist perceive the activity of the solar light which raises every little drop of sap that enters the leaves and blossoms to build up their structures? And are not the laws that describe these changes present in the mind of a man familiar with the subject so that he can upon the whole foretell what will happen, if some of the conditions were altered? If that is no penetration of thought into things, pray what is it?

VIII. UNKNOWNABLE MACHINES AND THEIR INVENTORS.

Are those things unknowable also that we made ourselves? Were steam and the laws of steam impenetrable to the thoughts of a Watt and to a Stephenson? Is a watch unknowable to a watchmaker? Is the Eiffel tower and its structure unknowable to Mr. Eiffel? Is the phonograph an unknowable instrument to Mr. Edison? Is he hopelessly ignorant about the materials and their qualities of which its different parts consist? Must he not have a very exact and an exhaustive knowledge of the laws according to which the wonderful little machine acts?

Mr. Wake in his thoughtful essay *God in Evolution (The Open Court, No. 121, p. 1998)* brings out very strongly this point against agnosticism. We quote the following passage:

"To a philosopher in his study, or even in the presence of the ordinary phenomena of external nature, all our knowledge may appear to be resolvable into states of consciousness, but not to him who uses the qualities of matter or directs the forces of nature for working out some great useful design. The sculptor or artist can give outward form to his thought, and so can the engineer who tunnels under mountains or bridges arms of the sea. The discoveries of science, and their application in the manufacture and formation of works of art, are not consistent with the view that external phenomena are not truly represented in consciousness, whatever may be said of astronomy or any other science as the formulation of the laws of nature."

IX. REVERENT AGNOSTICISM.

In popular opinion I find that one of the strongest arguments in favor of Agnosticism is the preconceived idea that familiarity

* We purposely use the expression "natural laws describe," and purposely avoid the term "govern" in this connection. The expression "gravitation governs the motions of celestial bodies" gives rise to the misconception that the law of gravity is a power behind the phenomena of gravity. Thus we mystify ourselves by our own language and look upon gravitation as a metaphysical something that like a wizard rules the behavior of atoms and planets. The so-called natural laws are not laws, properly speaking, but comprehensive formulas which systematically and methodically describe certain natural processes.

breeds contempt. If a schoolboy gains a superficial knowledge of astronomy, the astronomer loses in his eyes the respect he before possessed. The mysterious, the uncomprehended, the unknown alone seem to command man's reverence.

Familiarity with scientific truth breeds contempt in him alone whose knowledge is superficial; all thorough knowledge will raise admiration and wonder and awe. Knowledge dispels superstitious awe and foolish fear, but the truly religious spirit, the recognition of the sublime in nature, is not lost through knowledge; it receives its only solid food whereon to live and to grow.

The savage will cease to worship a thunderer if he knows that thunder and lightning are produced through electrical tension. In that sense familiarity with a subject will breed contempt. But the scientist understanding the laws and the workings of electricity, will be more impressed with the grandeur of natural laws than the poor pagan, who bows down in the dust before the flash that shoots forth from the clouds.

It is one of the gravest mistakes of Agnosticism as presented by Mr. Herbert Spencer to base religion upon the Unknown, and—in order to give to religion a foundation which even the scientist dare not touch—to assert the existence of an Unknowable and recommend it as the basis of the future religion. The worship of the Unknowable is no religion, but superstition, and the proposed worship of a chimera, such as the Unknowable, it seems to me, is no improvement upon paganism. The pagan indeed does not worship the thunder because he does not know what it is, but because he does know that it might kill him. He worships the thunder because he is afraid of it, because of the known and obvious dangers connected with it, which he feels unable to control. He worships that which powerfully influences his life and which he cannot alter or fashion as it pleases him. Religion, true religion, is the recognition of the unalterable laws of nature to which we must adapt ourselves. It is above all the recognition of the unalterable moral law which builds up human society and made man a moral being—and the recognition of these laws implies the fear of breaking them and the confidence that a community in which they are obeyed, will flourish and grow and prosper, and its citizens shall enjoy the benefit thereof.

Occasionally I meet with the strange expression "reverent agnosticism." Reverence for truth is certainly better shown by earnest and bold inquiry than by a halting and submissive respect—as if truth were unapproachable.

X. CONCLUSION.

In conclusion I have to state that the difference in the principles from which Agnosticism on the one side, and Positivism on the other, start, is so great, that the very meanings of words and terms are affected by it. Words like *cognition*, *knowledge*, *manifestation*, *properties of things* (i. e., qualities), *infinite*, etc., have acquired different shades of meaning. Every one of these terms, being definite and clear in Positivism, is overshadowed by the dim mystery of the Unknowable in Agnosticism; every one of them partakes of that holiness which Agnostics attach to the obscure, the vague, the incomprehensible.

We are informed by Mr. Shipman that the leopard Agnosticism has swallowed what he believes to be the kid Gnosticism; and he hints that the kid Gnosticism is the positive philosophy propounded by *The Open Court*. The leopard has swallowed something, no doubt, that it cannot digest; for the diagnosis shows all the symptoms of the disease of agnosticism. What, indeed, is it but a desperate case of philosophical dyspepsia? P. C.

"Man must hold firm to the belief that what appears incomprehensible to him is comprehensible, since otherwise he will not investigate."—Goethe.

THE AGNOSTICISM OF MODESTY.*

AGNOSTICISM is a most praiseworthy position if it signifies Socratic modesty concerning all those problems which we have not as yet solved. But then, of course, it is a personal attitude, not a philosophy; it is simply a confession of private ignorance, which will be of great service in dispelling that ignorance.

Darwin when urged to state whether he was a theist or not, uses the word agnosticism in this sense, saying: "I think that generally (and more as I grow older), but not always, that an Agnostic would be the more correct description of my state of mind," i. e., more than a theist. And even here Darwin feels constrained to add the three little words "*but not always*."

Darwin was no philosopher, and all his utterances concerning philosophical and religious problems were made most unwillingly and with great reserve. The term agnostic is characteristic of this reserve. It was intended as the expression of his personal attitude and not as a philosophical dogma. In his own province of research Darwin certainly did not adopt the principle that the origin of the species was an inscrutable mystery. He showed his reverence towards truth not in an overawed reserve but in courageous investigation.

Darwin says in his preface to the *Descent of Man*:

"It is those who know little and not those who know much, who so positively assert that this or that problem will never be solved by science."

Who dares to cite Darwin's authority in favor of Agnosticism—save the agnosticism of personal modesty—in the face of that passage?

Professor Ernst Haeckel is again and again erroneously quoted as an authority in support of agnosticism. When I visited him in Jena last summer, he very warmly expressed his sympathy with the attitude of *The Open Court* for taking such a decided and unmistakable stand against the *ignorabimus* of agnosticism. He called my attention in this connection to his own controversies with Virchow and Du Bois-Reymond (especially *Freie Wissenschaft und freie Lehre*.)

The first number of *The Open Court*, p. 17, contains the following quotation from Haeckel without reference:

"I believe that my Monistic convictions agree in all essential points with that natural philosophy which in England is represented as Agnosticism. . . ."

Professor Haeckel declared that he did not remember ever having written a sentence to that purport, and I come to the conclusion that there is something wrong about the quotation.

The agnosticism of modesty is a great thing, for it gives a stimulus to investigation. However, the dogmatic agnosticism which establishes a belief in the Unknowable erects a barrier to scientific inquiry. Agnosticism is truly, as the French express it, *a cul de sac*. It leads us into a blind alley where no further advancement is possible and maintains that there the world is at an end. All great enquirers were agnostics of the former class, but the agnostics of the latter class are the great mystery-mongers of a pseudo-philosophy, such as Plotinus and Jacob Böhme, who may have been very profound dreamers, very original geniuses, but not clear thinkers, not true philosophers.

P. C.

TO THE MEMORY OF GEORGE W. DE LONG.†

BY A CLASSMATE, MAY 6, 1882.

Sent from the 'Lena Delta,'

Briefly the message said:

"Captain De Long and party

Found by us here; all dead."

* Written with reference to several scattered items which appeared of late in various liberal journals.

† Read at the annual dinner of the U. S. Naval Academy Graduates Association. Copyright, 1887.

Dead! and the world that learns it
Feels, though the story's old,
A gloom as of night and silence,
The waste and the bitter cold;

Feels for a moment vaguely
That somewhere, far away,
Men that were brave lie frozen,
Then turns to its toil or play.

For the great world bears of sorrow
But a feeble, feeble part;
To know of all men's grieving
Would break the great world's heart.

Dead by the frozen river!
Twenty long years ago
I may have heard him giving
Its length and course, as though

This one for him meant nothing
More than the rest he gave.
We knew all lands and waters,
But none could name his grave.

Poor fellow! The winds and currents
Had taken us far apart,
But the boy's good-will, remembered,
Told of the man's great heart.

Hail to the dead, that, dying,
Keep the old cause alive!
Score one for the side of honor,
And the class of "Sixty-five."

Yea, though the crowd may mock me,
Though the carping few deride,
I'll own that a comrade's valor
Fills my whole soul with pride.

The lowliest name that's written
Where the graves lie most obscure,
Gets light from the golden letter
On the shaft that shall endure.

Bring me no canting theories
To prove that the spirit bred
Of fellowship and honor
Should die with the old things dead.

They well may fear and hate it
Who, scornful of worth, conspire
To cover us all with sewage,
And fish in the common mire.

For the men that stand united
In sacrifice and toil,
Are an insult to the pirates
Whose only bond is spoil.

Leaving a sword left idle
Home in a land at peace,
He shipped with his brave companions
For the war that can never cease;

War with the waste unconquered,
War with the depth and height,
War with the false triumphant,
War for the fact and light.

"What is the use?" men ask us;
"What can we hope to know,
More than that man can conquer
The storm and the ice and the snow?"

"What is the use?" 'Twere useful,
If only to give us an hour
Of rest from your weary gabble
Of stocks and of pork and flour;

Useful to show the nations
That still, when honor calls,
Our flag has stars on azure,
And not three gilded balls;

Useful to teach a lesson
To the puling dolts who'd wed
The lily of the liver
To the laurel of the head.

But think of the past; remember
How much that we are to-day,
Comes from the strange devotion
Of lives that were "thrown away."

Sow, and then reap and garner,
Hoard and be rich; but own
That wisdom has used the folly
That lives not by bread alone.

On many a bootless venture
Many a sail's unfurled;
But some that start for India,
Find on their way a world.

Heedless of good or evil,
Something within the soul
Points to the great unknown
As a needle to the Pole;

Points and impels us onward,
Seeking what lies beyond
With courage the "wise" call folly,
And faith that the fool deems fond.

Sons of our *alma mater*,
Youngest of those who serve,
Cherish his name forever;
So shall you well deserve.

Trust to the truth and follow,
Hopeful and strong and brave;
For when all faith else is shaken,
This is the faith shall save.

WASHINGTON, D. C.

LOUIS BELROSE, JR.

CORRESPONDENCE.

THE INDO-EUROPEAN AND THE NEGRO.

To the Editor of *The Open Court* :—

HISTORY repeats itself, and the dictum of chief-justice Taney that "the negro has no rights which the white man is bound to respect" finds new and striking illustration in the proposition that the interests of the white race demand his compulsory emigration out of the only country which he has known for two hundred and seventy years. Just glance at this page of his history: To gratify the greed of Indo-Europeans the negro was stolen from his African home more than two and a half centuries ago and reduced to slavery. He was during this time accounted and treated no better than a thing, a dog. He was in fact in the eye of the law chattel property. The system of chattel slavery was maintained by the Indo-European race until it imperilled the life of the Republic. To save the Union the slave was made a soldier, to save a political party the former chattel was turned into a citizen. And now on the plea of preserving free institutions and the purity of the Indo-European race, the right of the negro to live where he was born, and where eight generations of his ancestors have lived before

him, is boldly denied. Forty years ago it was asserted often enough that this was a "white man's government." This old assertion is now bettered. For, translated by Prof. Cope, it reads: "This is a white man's country." But who made it a white man's country rather than a red man's or a yellow man's or a black man's country? The red race was here before and the black race came simultaneously with his Indo-European oppressor. What but the law of might makes America a white man's country, just as the law of might made her government a generation ago a white man's government? In his relations with the negro and the Indian the white man's "I can" has always measured the white man's "I may." It was this good old principle which planted African slavery in America; it is the same principle invoked by Prof. Cope to plant a greater wrong under the ribs of the old. Can a race any more than an individual man pursue with impunity a career of brutal and calculating selfishness? Is this the revelation which science makes "to the student of species-character in body and mind?" It is not possible for a strong race after inflicting the most erroneous miseries and wrongs upon a weak race through nearly three centuries, to terminate its relations and responsibilities to it by an act of final and transcendent selfishness and iniquity and then go on its way as if no wrong were done—aye advance the faster and the more for it. Is that a specimen of national morality with which the United States are to enlighten and lead the world? Is this a way to preserve its Indo-European purity of blood by such a colossal corruption of the resources of its moral life? For the peace of the realm and the purity of the holy Catholic worship the Huguenots were driven from France. For the peace of the country and the purity of the Indo-European race more than seven millions of colored people are to be deported to an utterly strange continent, to which for seventy years they have strenuously protested they do not wish to be sent. Is this the kind of liberty which republics cultivate in common with despotism, the liberty of the strong to execute without check their will on the weak? Let me tell Prof. Cope that an act like the one which he advocates would be productive of an amount of moral degeneracy on the part of his race, which no mere physical contact and mingling of whites and blacks could possibly work. Have the wrongs, which a superior race visits upon an inferior, no adverse effect upon that race's evolution from lower to higher levels of race-life. I have yet to learn that the practice of justice, the recognition of another's rights, the protection of the weak by the powerful have not in themselves virtue to raise races—even the Indo-European race to a height which mere flesh and blood force cannot attain. An initial wrong has power to taint the soul's blood to the remotest issue. It is therefore this contamination of the spiritual currents of a people, which even the Indo-European race ought above everything to dread and guard against. The wrongs done the negro cannot be redressed by an act of final and tremendous enormity such as this country would be guilty of were it to do what Prof. Cope urges it to do. Our posterity a hundred years hence will, I doubt not, regard us as half barbarian, and as proof that we were they, I fancy, will only have to point to the proposition of an accomplished student of science, for the compulsory emigration of seven millions of people from their homes and country for the preposterous purpose of preserving freedom for the white race and the purity of the Indo-European blood in the United States!

ARCHIBALD H. GRIMLIE.

HYDE PARK, Mass.

HEADS OR TAILS.

To the Editor of *The Open Court* :—

IN a recent number of *The Open Court* there appeared an article on the mathematical chances of heads or tails in the successive throws of a coin.

The author would lead one to think that the chances of head or tail in any one throw are affected by the results of previous throws.

This is a mistake, as would in fact appear from the method of explanation used, had ∞ instead of 20 been taken as the illustrative number within which the number of heads and tails are to be equal. Following the method of reasoning there used, we have ∞ heads and ∞ tails as the result of ∞ throws. Now suppose five heads thrown. Then $\infty - 5$ heads and ∞ tails yet remain to be thrown, and the chance of a head on the sixth throw is expressed by $\infty - 5$ divided by $\infty + \infty - 5$. This ratio is, of course, exactly one half, showing the chance of a head to remain unchanged.

The expression ∞ is here used in its ordinary mathematical sense of — greater than any number which may be assigned. That ∞ is the number of throws that must be made before Bernoulli's law can be fulfilled will appear on a moment's serious thought. That is, if the ratio between heads and tails is to certainly vary from unity by an amount less than any assignable quantity, then the number of throws must be greater than any assignable quantity. Such being the case, any reasoning based on 20 or any other finite number as the number of throws, must be fallacious and misleading.

That the results of previous throws cannot possibly have any bearing on the chances of future throws will appear with a little thought.

In the first place, common sense teaches us that once a throw executed, it belongs to the past and we pick up the dollar anew to all intents and purposes as though the preceding throw had never been made. The chances of any individual throw depend solely upon the conditions which limit it, and these are wholly contained in the present. The past has lost all hold on them.

If the past could influence the present or future in such matters, it would follow that the throwing of our man would influence that of another. Suppose, for example, two men, each throwing in succession, and suppose one has thrown six heads; will the chances of the other's throwing a head be affected thereby? Assuredly not. Suppose the men to be in opposite parts of the earth and throwing independently of each other. Will the chance of A in Chicago throwing a head be affected by the fact that just previously in Calcutta, B has thrown six heads or six tails? Most certainly not. If A's chances were thus affected, there would be no such thing as the calculation of chances or probabilities; for pushing the principle to its logical limit, it would follow, in the case of the coin, that no man in any part of the earth could throw a coin and know that he had even chances of head or tail. The chances would depend not only on all the throws he had ever made before, but also on all that anybody and everybody have ever made.

And as with throwing a coin, so with all other events involving chance or probability. If a man were to shake a die, for instance, the chance of an ace would not be one sixth, but one sixth plus or minus a certain modification depending on all the dice-throwing that has ever been done.

But enough has been said to show that the principle is fallacious. The past, powerful as it is in many ways, cannot effect questions of chance or probability.

As above stated, the general and only safe guide in such matters is the cardinal principle that the probability of any event is determined solely and completely by the immediate conditions and limitations of its occurrence.

A failure to understand this principle and a belief that in some inconceivable way past results do affect present and future probabilities, are not unfrequently met with. They appear in the schemes of gamblers for so disposing their bets in games of chance as to surely win—schemes utterly delusive, of course, as many know to their cost. We find the same idea also in the rather

quaint recipe for safety on board ship in time of action: viz., watch where the first shot strikes the ship, and then place your head immediately behind that spot.

A word or two in closing as to the elements which enter into the probability of throwing head or tail with a coin.

The assumption that with an indefinitely great number of throws the ratio between the heads and tails will indefinitely approach unity, can only be so when either event, *heads or tails*, can happen with equal readiness, and there is no element resembling a personal equation or bias tending to give one a slight preponderance over the other.

A slight lack of symmetry in the form or homogeneity in the mass of the coin would be such a disturbing influence, and its effect would certainly become apparent in a sufficiently great number of throws. Granting, however, a perfect coin, it seems at least highly probable that if an individual were to sit down and make a business of throwing it, that the ratio between heads and tails would not indefinitely approach unity, but that a tendency toward a preponderance in either heads or tails would become apparent. The causes of such a tendency would be in the nature of a personal equation and would result from his almost certainly falling into something in the nature of a routine of operations, which routine would affect slightly the results of the throwing.

If we pass from the case of one individual with one coin to that of many individuals with many coins, it is probable that the differences from exact fulfillment would be evenly distributed, and we might in this case perhaps fairly expect a close agreement with the theory. The effect in any case due to this element of personal equation is slight, generally inappreciable in the limited range of ordinary experiment, and from this cause as well as from the fact that it is almost impossible to submit the matter to anything approaching careful measurement, its consideration is omitted in the mathematical discussion of problems relating to choice, chance, and probability.

W. F. DURAND.

AGRICULTURAL COLLEGE, MICH.

NOTES.

We have received a number of copies of *The Illustrated Medical News* (London, 48 Queen Victoria Street), a special magazine of excellent make-up. Of the articles of interest we may mention the series by G. W. Hambleton, L.K.Q.C.P., on the "Suppression of Consumption," and a contribution by the same author on "Physical Development." After an exhaustive review of the causes of pulmonary disorders and the unnatural conditions of modern civilization, Mr. Hambleton says: "When we look at the position such conditions hold in civilization, at the advances that are being made by man's increasing knowledge of the operations of nature, and his application of that knowledge to his own purposes, and at the progressive increase of such tendencies, then we see that in consumption we have one of the processes by which an adjustment is being made between the body and the work it has to perform under the changing conditions of advancing civilization, by the removal of those who have a body in excess of that work, and that the survival of the so-called fittest is thereby effected." Mr. Hambleton's suggestions regarding the methods by which consumption may be prevented and the development of the chest effected, are eminently practical and recommendable. Our readers will profit much by a perusal of the articles.

Die Ethische Bedeutung der Frauenbewegung (The Ethical Significance of the Woman's Rights Movement) formed the subject of the address of Helene Lange before the General Conference of the German Woman's Association at Erfurt in September last. It is eloquently and earnestly written. The sources of Miss Lange's inspiration are mainly American; but the *Ethics of Höflichkeit* are often referred to in support of the general theses. (Berlin: L. Oehmigke.)

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LOOKING FORWARD.

HUMAN progress depends upon the dreams of enthusiasts. The inventor, the discoverer, and the reformer are dreamers, who prophet-like see in their imagination things that other mortals know not of. Every one of such men might very well say: "I had a dream which was not all a dream." Their dreams become realities and many such dreams are commonplace facts to us now. Indeed civilization consists of such realized dreams. How useful are these dreams!

We call dreams which are not all dreams, ideals. Why is not every dream as useful as a genuine ideal? Because the stuff of which the ideal is made—I mean the genuine ideal only—is taken from the actual state of things as they exist in reality, and handled according to the laws of nature.

James Watt took iron and steel and steam, and made them act according to their nature. He combined certain realities. He applied natural laws, and lo! the combination of his thoughts revolutionized the world, and lifted all humanity upon a higher level than it had occupied before. The genuine ideal is a dream that genius shapes out of reality.

We have become reverent toward the dreamer because of the usefulness of certain dreams. Dreamers, it appears, command our respect even if they are but dreamers. A certain man once learned at school that our atmosphere exercises a constant pressure of fourteen pounds upon every square inch of our body—constituting a total pressure of about forty hundred-weights upon the surface of the skin of an average adult person. This man had a dream that he lived upon a planet without an atmosphere. People felt so free and easy, in the absence of all pressure, that they moved about like winged angels. He told his dream to his neighbors, he wrote it down and published it, and it is the one hundred and ninety-first or second edition that is now being sold. Humanity builds altars to the dreamer, because he is a dreamer; he had a vision.

Every man that works for the progress of the human race has and ought to have our sincerest sympathy. We, all of us, should know that society in many respects,—perhaps in most respects,—is not what it ought to be. We have abolished slavery, but

the laborer is not as yet the free, and independent, and intelligent man he ought to be; not as yet is the employer the humane, and intelligent, and well educated man he ought to be. The people perish from want of knowledge; it is knowledge that will make the laborer free, it is knowledge that will make the employer humane. Knowledge, if it is knowledge at all, means an acquaintance with facts as they really are, with natural laws and sociological laws, which latter are just as much laws of nature as gravitation or other natural laws are. And it is truth only that can make us free.

There comes a dreamer who flatly proposes to abolish the law of gravitation. He explains in a marvelously lucid sketch that every man who falls and breaks his leg, falls only because of the law of gravitation. Things are heavy because matter gravitates toward the centre of the earth. All the troubles of transportation are inconveniences due to gravity. There is no misfortune or annoyance that has not its root in this vilest of all natural institutions—gravity. Come therefore and let us abolish gravitation!

A dreamer like that is called an idealist, and great respect is paid him by the unknowing many. It is difficult to state whether such a dreamer, and all those infatuated by his dream, are to be envied or to be pitied for their illusions.

Mr. Bellamy depicts a state of society where there is no competition. Competition is the struggle for life among peaceful human beings. It is the struggle for life that created man and human society and all progress of the human race. But then there is much misery that arises from the struggle for life. The lesson that life teaches is, in my opinion, the admonition to make the struggle for life more humane. Let us therefore educate the growing generation better than the former generations, let us adapt ourselves to nature, let us break down artificial barriers between man and man, that the struggle for life may become a fair and honest fight for progress, that our competition may be an honest endeavor to do better and more useful work. Let us be fair to our enemies and to our competitors, and we shall soon find out, that the abler they are, the stronger and fiercer their competition is, the better it will be for us. They help us to progress, they force us to progress,

however much worry they cause, we would certainly not be better off without them.

Why should the relation between employer and employee be that of a master to his slave? It is partly now, and let us hope that in the future it will always be, looked upon as the co-operation of a worker with his co-workers, in which the one bears the main risk and will get a proportionate share of the profits, if there are any, while the others earn their fixed wages. Why should we abolish the principle of free enterprise, which encourages thrift, and progress, and invention, because there are some imperfections in its application?

In certain branches co-operation may, and I believe it will, become more practical than it is to-day. Such co-operation will in each case have to be based upon the freewill and assent of every independent individual, but it cannot—even not by the vote of a majority—be imposed upon the whole nation. And if it could, it would not work. It would change all trades into industrial armies and a few bosses would have to run and regulate the whole co-operative business of the nation. It would transform our present life of free enterprise and competition into an enormous penitentiary, only very humanely instituted—supposing that all convicts would willingly submit to the rules of the institute. The imperial army as well as the imperial post office and railroad service of Germany are a partial realization of Nationalism.

We want more chances for labor, more elbow-room for the courageous, especially for the poor. It is true, we demand that the license of the unprincipled be checked, but we do not want the liberty of anybody to be curtailed, be he a millionaire or an unskilled navy.

Mr. Bellamy proposes to abolish the struggle for life. He has told us in his little book all the advantages of the scheme, and they are many. We can dispense with all the tedious inventions of civilization; we need no more private property, no money, no rewards for industry. Thrift will be abolished, for we are told that "the nation is rich" and does not wish to encourage economy. Prisons are abolished, but it is to be expected that the asylums will be overcrowded, for criminals are locked up together with the insane. We return to the communism of savage society. We shall lose our independence. Some wiseacre of a phrenologist will settle the fate of a boy, whether he is to be a hodcarrier or a philosopher. With the evils of competition we shall abolish the most divine blessings: human freedom, independence, responsibility, and above all self-reliance.

We are confident that "the present order may be replaced by one distinctly nobler and more humane." But the new order of things cannot be established by

the proposed panacea of Nationalism and the abolition of competition. The new order must grow and evolve out of the present state of things, not otherwise than our present civilization developed out of savagery. In the new order of things we hope all unnecessary struggle will be avoided; we shall have less waste and a minimum of friction; yet the law of competition will remain in a future and better state of society just as powerful as it ever was since time immemorial and as it is to-day.

Nature has not designed man to live for the mere enjoyment of life. Nature under penalty of degeneration sternly demands and enforces a constant progress through struggle and work and sacrifice. And those who devote themselves to the pursuit of happiness, will soon find that they are following an *ignis fatuus* that leads them astray into the impervious marshes of perdition. If a social reformer promises a millennium of happiness, be on your guard, for in that case he is misleading you. Look at his schemes with a critical mind and you will see that his Utopia is a fool's paradise.

* * *

Mr. Bellamy's book and its popularity is one of the most ominous symptoms of our time. It is an outcry for the satisfaction of material wants and for pleasures; a hunger for *panem et circenses* to be provided by the government, by the nation. The average citizens of Rome during the Punic wars were by no means rich, but they possessed an indomitable love of independence, and the Republic at that time rested upon a sound foundation. But when the Romans cried for *panem et circenses*, Liberty died and Caesar appeared. Caesar gave them *panem et circenses*, and the price they had to pay for the trouble he took, is known in history. The people who want to be taken care of and catered to with bread and pleasures, have forfeited their claim to freedom.

"Looking Backward" proposes to abolish the social law of gravitation which indeed causes many troubles in life but which at the same time produced and still produces our civilization. Thus the book is truly a looking backward to the primeval state of barbarism.

Let us cease to dream the useless dreams of abolishing the laws of nature. Let us rather abolish the artificial barriers between the so-called higher and lower classes. Give the poorest a chance to acquire as good an education as the richest command. Facilitate the opportunities of labor so that the industrious need not go begging for work. Thus we shall break down the hindrances that prevent progress, and in adapting ourselves to the laws of nature we shall better be prepared for a true and useful Looking Forward.

THE STUDY OF SANSKRIT.

BY PROFESSOR F. MAX MÜLLER.

It has often been said that no one can know anything of the Science of Language who does not know Sanskrit, and that that is enough to frighten anybody away from its study. But, first of all, to learn Sanskrit in these days is not more difficult than to learn Greek or Latin. Secondly, though a knowledge of Sanskrit may be essential to every student who wishes to do independent work, and really to advance the Science of Language, it is not so for those who simply wish to learn what has been hitherto discovered. It was necessary for those who laid the foundations of our Science to study as many languages as possible, in order to find out their general relationship. Men like Bopp and Pott had to acquire some knowledge of Sanskrit, Zend, Gothic, Luvianian, Old Slavonic, Celtic, Armenian, Georgian, Ossetian, Hebrew, Arabic, and Ethiopian, to say nothing of languages outside the pale of the Aryan and the Semitic families. Their work in consequence was often rough, and it could hardly have been otherwise. When that rough work had been done, it was easy enough to proceed to more minute and special work. But it seems unfair, if not absurd, to find fault with pioneers like Bopp and Pott, because some of their views have been proved to be mistaken, or because they exaggerated the importance of Sanskrit for a successful study of Comparative Philology. Without Sanskrit we should never have had a Science of Language; that seems admitted even by the extreme Left. After the study of Sanskrit had once led to the discovery of a new world, it was but natural that the land should be divided and sub-divided, and that each scholar should cultivate his own special field. Thus Grimm chose the German languages for his special domain, Micklosich the Slavonic, Zeuss the Celtic, Curtius Greek, Corssen Latin. There came, in fact, a reaction, and we were told at last that Sanskrit had nothing more to teach us. Not long ago Manchester, which has taken the lead in so many important movements, informed the world through the *Times* that the long-planned revolution had at last been successful, that Sanskrit was dethroned, that its ministers had been guillotined, and a new claimant had been installed, who had been in hiding in Finland. The Aryan language was a mere bastard of Finnish! However, when the real sources of this information had been discovered, the panic soon came to an end, and scholars worked on quietly as before, each in his own smaller or larger field, unconcerned about the *pronunciamentos* of the Manchester or any other new school. If the rebellion meant no more than that Sanskrit had been shown to be the elder sister only, and not the mother of the other Aryan languages, then I am afraid that I myself

must be counted among the oldest rebels. If it meant that the students of Comparative Philology could henceforth dispense altogether with a knowledge of Sanskrit, then I feel sure that by this time the mistake has been found out, and Sanskrit has been restored to its legitimate throne, as *prima inter pares* among the members of the Aryan republic.

It used to be said for a time that even the A B C of Sanskrit was extremely deficient and misleading, and that the system of the Aryan vowels in particular was far more perfect in Greek and German than in Sanskrit. Sanskrit, we were told, has written signs for the three short vowels only, *ā*, *i*, *u* not for short *e* and *o*. It was declared to be a very great blemish that the two vowels *ē* and *ō*, which existed in the primitive Aryan speech, had been lost in Sanskrit. If, however, they were lost in Sanskrit, that, according to the laws of logic, would seem to show that Sanskrit also formerly possessed them, and possibly found that it could do without them. The same spirit of a wise economy may be observed in the historical progress of every language.

But it has now been recognised that, from a grammatical point of view, the Sanskrit system of vowels is really far more true than that of Greek, German, or any other Aryan language. It seems to me altogether wrong, whatever the highest authorities may say to the contrary, to maintain that the Aryan languages began with five, and not with four short vowels.

The Aryan languages possessed from the beginning no more than the well known four fundamental vowels, namely *i*, *u*, the invariable *a*, and the variable vowel, which changes between *ε*, *o*, and rarely *α*. There are ever so many roots which differ from each other by having either *a*, *i*, *u*, or that fourth variable sound; there are no roots that differ in meaning by having either *a*, *ε*, or *o* as their radical. Hence (*α*), *ε*, *o* represent one fundamental vowel only; they are grammatical variations of one common type.*

If we represent roots, as in Hebrew, by their consonants only, then we have in the Aryan languages a root consisting of D and H. With the radical vowel *i*, that root DIH means to knead, with the radical vowel *u* the root DUH means to milk. With the third or variable vowel, the root DaH means to burn, and it may appear in certain grammatical derivations as DaH, DeH, or DoH. We never find a root DaH by the side of a root DeH, or a root DeH by the side of the root DoH. What we find, and what has not yet been explained, is that certain roots show a decided predilection for *ε* or for *o*.

Here then we see how right Sanskrit grammarians were in admitting only four, and not five fundamental vowels, though it might have been better if they had

* I use for the invariable *a*; *ε*, *i*, *u*, for the variable vowel.

in writing also distinguished between the invariable α of AG, and the variable α of BHAR. Whether the variable vowel was in Sanskrit also pronounced differently in different grammatical forms, we cannot tell, because in Sanskrit that variable vowel in the body of a word is never written. There are indications, however, in the changes produced in preceding consonants, which seem to speak in favour of such a view.

And nowhere has the importance of a knowledge of Sanskrit been shown more clearly than in the explanation of these very vowel-changes, in Greek and German. Why the variable vowel appears as α , ε , o or disappears altogether, why the second and third radical vowels are weakened or strengthened in the same way, remained a perfect mystery, till the key was found in the system of accentuation, preserved in the Vedic Sanskrit, and nowhere else.*

But although in this, as in many other cases, Sanskrit betrays more of the ancient secrets of language than Greek or Latin or German, there is plenty of work, and most important work, to be done in every language, nay in every dialect, for which we want no direct aid from Sanskrit. Some of the most brilliant discoveries in the Science of Language have lately been made by students of Teutonic philology. The work begun in that sphere by Grimm and Scherer has been carried on without any flagging by Fick, Schmidt, Sievers, Osthoff, Collitz, Brugmann, and others in Germany, by De Saussure in France, by Ascoli and Merlo in Italy. The same work has been taken up with renewed ardour in England, where Ellis, Morris, Sweet, Skeat, Napier, Douse, and others have done most excellent work, and made valuable additions to our inherited stock of knowledge.

Many more labourers, however, are wanted to cultivate this field of English scholarship. Thousands, as you know, have come forward to gather honey and bring it into the beehive at Oxford, where a Dictionary of the English Language is prepared which, when finished, need not fear comparison with the dictionaries of either Grimm or Littré. But there is much more work to be done in which other thousands might help, such as collecting spoken dialects, watching local pronunciation, gathering old proverbs, writing down with phonetic accuracy popular stories and poems, as repeated by old grannies and young children. If among some of my hearers to-day I have succeeded in raising an interest in language in general, and in kindling a love for their own language in particular, and if that interest and love will bear fruit, however small,—but nothing is too small in the eyes of a con-

scientious scholar,—then I shall feel amply rewarded for having stayed here to attend your Meeting, which, I hope, may henceforth become a permanent institution in the educational system of our country.

COSMOTHEISM.

BY W. G. TODD.

GRANTED that truth is the highest aim of the human mind, and the pursuit of it that which brings greater satisfaction to man than the pursuit of any other object; granted that the deep-sea soundings of science in the vast ocean of phenomena, and its daring generalizations therefrom mark the steps of a world-embracing truth which entrances the imagination and feeds the ambitious mind; granted that all this represents to man "the pearl of great price for which he will sell all that he hath,"—still, this truth in its static form alone does not truly reveal the goal of man: Thought without action is like the beautiful frost-nipped blossoms that will not pass on into fruit. Truth in its dynamic form is that alone in which man first finds freedom for his whole nature, and perfect rest,—that rest in onward motion, visible in every atom and structure, organic and inorganic that exists in nature.

I take the ground, therefore, that the form of philosophy called "Monism," so ably presented in *The Open Court* and in *Fundamental Problems*, is not only a system of thought which combines the richest fruits of philosophy with the latest significant facts of biological science, but that it has a work to perform,—that it not only *is*, but is *for something* in practical utility. Without professing to have grasped, or to be able to state, the full scope of its application to life, or to have seen aught but some of the minor, possible effects its all-embracing principle is capable of producing, I wish to speak of "Monism" as a possible working force in one direction,—viz., in its effects upon organized forms of religion, particularly at this time when something like the scientific form of religion indicated by its philosophy is everywhere apparent as the aim of the coming age.

It is a fact, patent to whomsoever will open his eyes, that the statements of faith and principles in the older organizations of the Christian religion (we need go no further than these) are not in accordance with the later revelations of scientific truth. It is, also, just as much a fact that those elements in the psychic nature of man which have furnished the subjective grounds and immanent necessity for religion are, to-day, as active and imperative in their demands for exercise as ever. Indeed, the religious necessities of man grow greater with the increasing accumulations of scientific knowledge, and the increasing magnitude of the moral problems of life.

If the above fact concerning organizations, to any

* Udata in Sanskrit means high, anudatta not-high. Originally the *udatta* syllable represented what we now call *hochtöne*, the *anudatta* *Tiefstufe*, at least during the period when accent meant as yet musical pitch only.

of my readers' needs confirmation, I would refer them to the internal emotions and struggles, permanent as well as spasmodic, visible in nearly all church organizations, especially during the last half century.

The strain upon the platforms of the churches still goes on. Physical science has entered the arena of critical strife, and presents solid facts over which the doctrines lamely stumble. Unlike speculative philosophy, science offers no palliative crutches to the disabled. Her decisions are like those of the Supreme Court; from them there is no appeal. It is no longer the minor doctrines in the chain, "linked and strong," that are chiefly called in question; it is the fundamental statement upon which they all rest,—the theological statement of the being of God. This is the doctrine which is now on trial in the crucible of scientific thought, and it apparently has only one of two alternatives,—the being resolved into nothingness, or reappearing under a new form.

Here, then, is presented the opportunity of a unitary philosophy, or, I might say, herein arises its necessity. Science has made no malicious attack upon religion. She has been simply obedient to the law of unity, that law which inheres in the nature of all known things, and her deep-lying facts, brought to view along the lines of this unity, have themselves *opposed dualism*. On dualism have every scheme of vicariously-purchased salvation and the doctrines of nearly every church organization rested, and at the door of dualism has nearly every system of philosophy ended its labyrinthian travels. It has been God and the devil, matter and spirit, and the world has waited long for the solvent principle that should express the deeper unity.

As the rough handed pioneer in the search for unity, science has gone on in advance. She has made many doubters as she has built her cabins beyond the line of the formerly known, and has invaded the mysterious realm of the supernatural. She has created the materialist, who, dreamer above all mystics, dreamed he had at last a solid fact in matter; and she has also given birth to the Agnostic, who, supremely cautious, strives to avoid a pit by giving it a negative in place of a positive name, and she has called into existence scores of others as her temporary companions. All these await a unitary philosophy for their complete salvation from narrowness of thought.

But there are those who await Monism with a prophetic apprehension of its approach. They are instinctive believers in a higher unity which they have seen hinted in their sacred books; they still look for the indicative star in the heavens instead of beneath the microscope. They even look beyond Christianity,—even while their hearts warm at its very thought. For they have seen Christianity on trial, as well as the creeds of its churches. They have seen the whole

system of religion bearing this sacred name called before the judgment seat of those universal principles of truth it claimed to represent; have seen it asked to substantiate its claim to a monopoly of them, and their minds have been broadened by the verdict.

"Liberal Christianity," so-called, is, or ought to be, a Cosmic religion, or a Cosmotheism, supported by and expressing a unitary philosophy. I am not sure that this name, Cosmotheism, will convey to the majority of my readers its best meaning. To name prematurely is to encumber, if not to endanger the child of our thought. I have waited for years for the spontaneous appearance of that name which should rightly characterize the full aim of this liberalizing movement in religion towards its destined goal, but have found every name that offered itself to contain some objectionable limitation.

The idea I have had in mind needing this name was suggested by surrounding conditions, and points clearly to a religion that should not only be a Free Religion,—that is, untrammelled by limiting dogmas, but so true in its truth-basis as to include freedom, and render unnecessary and even offensive the assertion of this in its name. It also points to a religion thoroughly ethical in its culture, because its fundamental truths include all incentives necessary to that harmonious living pictured in the moral ideal, and to a religion so broad in its fellowship, that it not only welcomes all, but dares to trust thought to build a positive platform for all on philosophical convictions, broad as the laws of thought themselves, and susceptible of improvement in harmony with the constant increase of scientific knowledge.

The word *Cosmos*, with its original idea of order and harmony, and in its extended idea, as stated by Humboldt, of "the system of law, harmony, and truth combined within the universe," together with the still broader idea growing upon man of the boundlessness of the universe of mind and matter, furnishes the right breadth of field for that fundamental idea in religion, which is a soul-melody with the All-Ensouled, and for that basic fact in morality, which is a tuneful harmony of our lives with life throughout the All.

The full name, Cosmotheism, states a theology that is in harmony with the scientific thought of the age. Its God, as a visible presence in the unifying laws of every object, and in a similar unity throughout nature, is an existence that can not only be seen with the intellect, but felt through the emotions, rejoiced in as a tangible presence, communed with by all thankful hearts, who feel that they partake of Nature's life and Nature's gifts, and who aspire to the ideal in which it presents itself to us as the type of our race. Thus, in a Cosmic religion, none of those genuine elements which enter into religion, generically

considered, such as worship, prayer, aspiration, and love, would be dropped out, but each resting upon a real foundation in a consciousness of the All, would give full religious satisfaction and essential poetic expression to that part of our nature which looks beyond all that is partial in human love and human excellence, on to that world-embracing form of both which knows no bounds, and is ever full of promise to the limit-spurning human mind. The statement of common human experience in this wide-visioned, poetic side of man's nature, and of all known facts concerning his relations to the All, would constitute a Cosmic theology, having a definite basis in fact with a capacity for growth and adaptation commensurate with accumulating knowledge.

I cherish an interest in the unitary philosophy advocated by *The Open Court*; and that interest is a practical one. I am viewing it, not merely with the receptive, sympathetic mind of the lover of a comprehensive theory, but with an eye to its possible effects upon the religious thought of the age. I am aware that the devotee to philosophical thought must have no ulterior aims concerning practical results,—that he must, in fact, renounce all but the one purpose of finding the truth, yea, sacrifice all in its pursuit, but I must accord to higher minds this noble devotion, and take the more humble position of welcoming the truth in its working garb among the present problems of life. Monism, or some unitary philosophy, will meet the present wants of men in thought and daily life when it can be reduced to their comprehension and taught in some form which will touch their lives. I know of no better way to do this than through that Cosmic religion which is already recognized among many liberal clergymen* as the positive form towards which the transition stage of liberal religion has ever pointed and in which it finds its explanation.

"Liberal religion" is a significant name. It denominates a struggle in which religion is liberating itself from that which is choking its life. The name is not the pure symbol of religious freedom, nor is it the unmixed cognomen that pure religion deserves. Religion itself includes the freest life of the soul beyond which there are no wider opening vistas, and its name is dwarfed by any modifying prefix. Liberal religion is the belittling name that expresses a want of freedom,—a crippled life struggling with foreign bonds. Out of this transition stage there is being evolved a positive religion, or, to state it better, simply religion in its purity, to be supported by a positive philosophy of unity.

No religion that has drawn to itself a powerful support has been without its philosophy. Liberal religion kept itself barely upright on what could be exhumed

from the burial grounds of its opponents in religion, with here and there a bone from various systems of thought.

I welcome therefore a unitary philosophy as a practical working power, capable of putting a base under the most progressive thought of the age. The thought yet floats in the air, with, perchance, here and there a pretentious trestle-work of sentimentality which drags down rather than supports it. Heavier timbers on a solid foundation are needed. "Is your ideal in the air?" asked Thoreau, "That is where it ought to be; now put a base under it." Thoreau's recommendation ought to encourage some of our progressive, religious thinkers. They need only the base. That base must be a philosophical one, and, in harmony with the age, it must be monistic and not dualistic.

Dualism is a half-way house in thought, at which, if a man tarries more than for a night's rest, he loses the singleness of his vision. It is a makeshift, a string in the harness, which starts the journey well but ends it in a pit. It is an externally sanctified dress beneath which are the cloven feet; and science treats this figure as Martin Luther treated some of his apparitions,—fights it under its true name.

The unitary philosophy can be taught the masses of the people, old and young, through evening school and Sunday school instruction, and in Sunday services that give free exercise to man's ideal aspirations towards moral unity. In the latter could be used all the poetry, melody, and beauty found in art and nature, and in the former could be employed such modern pedagogic methods as are already found to be best in the reduction of abstract thought to the comprehension of minds, trained only in the one-sided perception of concrete forms.

Philosophy in former days reached down to the masses through the mystic thought spoken in the symbol. It satisfied the emotions with its poetry, but it required the mind to reach first principles through a *salto mortale*, that to the scientific mind was a leap in the dark. It worked passably well so long as the imagination furnished the principal entrance into the human mind. But the working days of this method are past,—past in philosophy, in religion, and in morals; and the teachers of truth in a Cosmic religion must recognize the change. The present is the day of object lessons. Starting with facts and objects in every day experience, all of which are alive with God and expressive of universal laws, the mind of the child and of the humblest thinker can ascend step by step to general principles that govern classes of objects, races of men, as well as individual morals, and this education can extend itself to include all the poetry and beauty that can enter each individual mind as well as all the exact knowledge. By this process the legitimate

* See *Unity* of Dec. 25, 1889. One of the editors (p. 11).

symbolism of all forms of beauty expressive of the ideal could be used, and far more effectively used than the special symbolism of Oriental lands, already repeatedly made over to fit the out-growing forms of younger generations, and for whose antique style one must cultivate a special taste.

These closing words briefly indicate a course by which the Cosmotheism already existing in potential form in every community, could go hand in hand with a unitary philosophy in instructing the great mass of the unchurched, and independent thinkers generally, in those fundamental principles of known truth which would bring satisfaction to their minds and a nobler and purer tone to their lives. For this work the fields are already white with the harvest.

THE FUTURE OF RELIGION.

BY J. H. BROWN.

[CONCLUDED.]

MANY persons however, Mr. Harrison among the number, seem to think that the emotion of gratitude is the main, the indispensable element of religion. This I think is a mistaken idea. Mr. Spencer has shown how little of what we call gratitude is due from us to our progenitors, men who consciously and right ly laboring for themselves, necessarily carried the race upward by their efforts towards self-advancement. So common is the notion that gratitude is a duty to be religiously inculcated, that most persons would be shocked by the suggestion that there might be a contrary opinion. 'What others give as duties,' says Whitman, 'I give as living impulses. Shall I give the heart's action as a duty?' Gratitude, as commonly understood, is supposed to be a resultant union of personal affection and the sentiment of justice due from one who is benefited towards a benefactor.

From one view it is an eminently proper sentiment which the generosity of a patron is supposed to excite in all worthy objects of his bounty; a humility of the heart, which a mean man who is strong wishes to receive, and a mean man who is weak is willing to render. It is, in fact, a tattered remnant of the feudal, aristocratic patchwork, which the present age is tearing to shreds, with so much besides that is false, flimsy, and bad. But, as commonly understood, gratitude is that sentimental something which is recognized as due where there is no legal or juridical indebtedness.

Now I submit that this sentimental something is a thing which should never be inculcated as a duty, which should never be expected by a benefactor, and should never be regarded in the light of duty by the person benefited. To be so inculcated and so regarded is, it seems to me, to make a subject for moral maxims of what should be and can only be a spontaneous emotion of the heart. It is to trouble the pure spring

of the affections, and endeavor to make act with the regularity of an artificial fountain the one thing above all others in human nature which demands untrammelled freedom. It is gradually coming to be understood that the affections cannot be constrained.

I suppose it is no longer taught as a *duty* that a child should love its parent. If a father would be loved by his child he now endeavors to *win* the child's affection. Assuming that they are both normal human beings, if he fails in this it is either because he has not taken the fitting method, or because there is some obstacle in his own nature or in that of the child which renders affection difficult if not impossible. But love cannot be gained by preaching the duty of affection, and it is precisely so with gratitude. There may be the consciousness of indebtedness, but if this should be accompanied by a feeling of dislike or by indifference it would hardly be called gratitude. Gratitude then is not a duty any more than love is a duty.

The propriety of this sentiment is to be regarded from two sides, from the side of the person benefited and from the side also of the person who confers the benefit. Take the case of two friends, one of whom has done the other a kindness. What should we think of him if he expected his friend to be grateful? What should his friend think if he knew that gratitude was expected from him? Would he not hasten to cancel the supposed obligation? Does any high-minded man do a kindness looking for the gratitude of the recipient? Would he not do it if he thought he would not be so repaid—if he knew that his action would be regarded as a friendly matter of course? Take again the relation between parent and child. Does a generous father expect gratitude from his children? Would he not be satisfied with love? Will he give his purest affection to his child and then expect it to be grateful from a sense of duty? Will he give his best affection to his child and then be satisfied with anything less than the child's spontaneous regard? And if he finds he cannot have this, will he denounce the child for its lack of feeling, its lack of gratitude? If he could do so I should not greatly admire him.

A deity of the moral stature of one of the ancient theologies might demand from its subject creatures a worshiping gratitude, but can we imagine a deity such as is not beyond the conception of an ordinarily good man desiring it? Yet Mr. Harrison's object of worship, the Great Being, Humanity, would find this sort of incense sweet in its nostrils. Does it not occur to one that this worshipful gratitude savors very much of self-adulation? It will be said that the Great Being, Humanity, being unconscious does not receive this flattering incense, but if an unconscious humanity does not receive the gratitude of its conscious parts, where is the need for offering it? The point is simply

this, if a benefiting Power be great enough it will desire no reward of gratitude or ought else from its beneficiary, and if the creature benefited be simple and good, it will accept the gift as a child from its parent without thought of any possible return in the way of gratitude. There has been too much preaching of gratitude. In a society of free, affectionate, and independent persons the word would lose its meaning. It can never be the teaching of any religion of the future worthy the name.

The working value of the religious idea, as it seems to me, lies in its power for union, its power for organization. From this view Religion might truly be termed the social emotion. If it is feeling that divides men, it is emphatically feeling that unites them. We know what a bond there is in family feeling, what a bond in the sentiment of patriotism. Religion is that comprehensive bond which should include all these. The success of Christianity was due largely to the fact that it was all-embracing. It made no distinctions of race or caste. It was intended for all mankind. It has been found inadequate, but no religion which attempted less than this could displace it. In union is strength, in union is happiness. We all know what loss results from the divisions and acrimonies of parties and sects. There is one characteristic of the society of the middle ages under Catholicism we well might envy it. It somehow presents an aspect of wholeness and totality. Can as much be said for our own time? Take France for instance. How disorganized society there seems, how near the verge of dismemberment. England, at this distance, does not appear in much better case. Doubtless the causes which contribute to this disorganized condition are manifold. But how largely these causes are owing to the disintegration of the old religions and political order, no one can say. I hope it will not be supposed that I am saying anything in defense of the old order. No one rejoices more than I that its time at last came. But I would that the time were ripe for that rounded and more perfect successor, that purer and finer organization which I am persuaded is destined to succeed it.

We are in a transition stage, we say. We are torn and tossed between the old and new. All things are at question, opinion is in a ferment, mental rest, and tranquility are almost unknown. But there will be an end to all this. A time will come when father and son will not be torn apart by conflicting opinions, when friends will no longer be severed by dissenting views which are as the breath of life to them. When men and women shall not be obliged to build themselves separate temples, for the reason that they cannot all meet together on a common ground of feeling and opinion. A mighty force toward this desired consum-

mation, as its unsettlement has resulted in disorder, will be what men have called Religion. And when that time shall arrive, that which shall preserve and keep entire peoples happy and united, shall be a common religion. To this both the sciences and the arts shall contribute. Its purpose shall be to guide men, to encourage them: to celebrate the good, the beautiful, the true; to teach gentleness, tolerance, progress. But its main idea shall be union; for as the harmonious working together of all his organs and faculties is the health of the individual, so the harmonious co-operation of all the parts of society in a happy union of interests would be the health and perfection of the social organism.

In future, then, Religion will mean more than ever, what it has always very largely meant in the past, the fostering and bringing within one order whatever tends to unite and elevate mankind. Every religion, no matter what were its supposed relations to the supernatural, has aimed to do this, defective though its methods may have been. But in rearing the church of mankind he would be blind, indeed, who did not see that those supposed relations with the supernatural of the elder churches held a kernel of truth within their husks of superstition. Can any one suppose, for example, that the enthusiasm which the name of Jesus of Nazareth stirs is stirred simply by the grandeur of his human attributes—by the man, Joseph the Carpenter's son? No, the emotion excited is a profounder one than any mere human regard, however powerful, could arouse. It is as the son of the living God—the connecting link between humanity and the great Power on which humanity depends, that the name of Jesus is so potent. And when the heart of each man goes with its treasures of feeling to humanity, recognizing in it the Human expression of this Power, as Christians have recognized its human expression in Jesus, then will a Religion, which may well be named the Religion of Humanity, stir large and ever larger multitudes, as the name of Jesus has been wont to move the assemblages of Christendom.

Man does not live of himself. Whatever beauty there is in human nature is a beauty given, a beauty derived, from maternal Nature, as we say, but beneath and beyond Nature we recognize that Infinite and Eternal Power on which the hopes, the fortunes, and the destiny of mankind depend. Let us not evade this: either mankind is self-created, self-sustained, or it has been created (terms are unimportant) and is sustained by a Power greater than itself. This is the kernel of truth in the teachings of theologies, and this is what men must recognize to the end of time. Man is nothing of himself. The suns wax and wane, planets speed along their destined paths, they become the abode of life, and life grows cold and dies; and

on their tiny islet, washed by the ocean of infinite space, the generations of men arise and pass. And shall this helpless atom, momentarily issuing amid the stress and rush of multitudinous forces, pretend to cut himself off from the mighty Influence which controls him and do himself homage as to a divinity? In man is beauty and the perception of beauty, in man is goodness, in man is elevation of thought and feeling (tried necessarily by human standards); yet surely we must each admit that man has not made these things for himself, but that they are the manifestations through human beings of qualities inherent in that Cosmos of which human life forms an infinitesimal part.

And thus the emotions which the thought of the Infinite arouses, and the emotions which belong to us as members of the great human family, will intermingle and supplement each other. If humanity be weak and finite, it is supported by the infinite and omnipotent of which it is the child. Thrilled by the might and magnificence of the universe, we can yet feel that we are not aliens on an unknown shore, that we have not drifted hither, the sport of chance and death and birth, that the Power which produced us is greater than we, and that we may with trusting and faithful hearts take spiritual rest in this house of Nature where we dwell.

And then the human, what Mr. Harrison calls the practical side of this Religion, which shall be large enough for a citizen of the world, for a patriot whose countrymen are all mankind; all the tender relations of husband and wife, parent and child, brother and sister; all the sweetness of love, all the sacredness of friendship—these have a part in religion. They are religion. Whatever tends to make social life whole and sound is religious. All high emotion is religious, all earnest and disinterested endeavor is religious, constant faith is religious, all scientific ardor is religious. The passion for truth of the philosopher, the passion for righteousness of the moral teacher, the passion for beauty of the poet—these are all religious. Whatever lifts to loftier heights of contemplation, to sweeter purity of feeling, to a fearless faith which believes that if it be 'a lucky thing to be born,' it may also be 'a lucky thing to die,' and that the only unlucky thing is to falter and be false—this is all religious.

Social devotion, as Mr. Harrison says, is religion, but that is also religion which prompts us to lift ever and ever further folds of the mysterious veil which surrounds us. After all the individual life is little; the life of the race is more, but we can conceive its limits. Whether we can or not, we know it to be limited and conditioned. Why should we pretend that we stand alone. A friend of mine of a somewhat

intense disposition once said to me, with reference to the question of the immortality of the soul, that if this span of 60 or 70 years were the end of all, he would not consider it worth while. He was young and desired the infinite. The human mind seems to demand the inexhaustible; it hates the limited and commonplace; and I almost think that if we could conceive the universe as measurable and find out the secret of it to-morrow, we should begin to regard it as rather a poor affair. Carlyle says somewhere, in illustration of this quality of our nature, that if a newsboy were given possession of half a universe, he would immediately turn eyes of longing toward the other half. I suppose he would want more territory. There would be no satisfaction in fishing within one's own boundaries.

For me the question as to whether primitive men worshiped natural objects in themselves, or as the outward manifestations of inward powers or spirits, is of secondary importance. If we examine all the more important religions known to us, we find them taking cognizance of two grand facts,—the Infinite, giving rise to the sentiments of wonder, awe, and cognate emotions, and the humanly finite, filling us with the related feelings of love, pity, charity, etc. On the one side humanity, the human expression of the Infinite Power, with its strengths and weaknesses, its beauty and deformity, its joys and sorrows, its great needs; on the other side the Cosmic Power, called by whatever name, Jove, Jehovah, Allah, the Great Spirit, the Deity, the Infinite, and Eternal Energy from which all things proceed, which is not less but greater than personality, mark: the Power which was in the infinite past ere the parent sun from which our earth draws its life took form from the void, and which will be in the infinite vistas of the future, when our sun and the system of suns to which he belongs, will have again dissolved 'like the baseless fabric of a vision.' What the meaning of the Mystery, and what humanity's meaning and purport here, it is not given us to know; but to say that there is no consciousness of 'Mystery and Omnipresent Power'; or that this consciousness does not stir the profoundest emotions of awe, wonder, and desire, which in many men have risen to the point of ecstatic rapture, is, it seems to me, to admit an extremely low condition of spiritual life or to palter with one's primary intellectual assurances. Such an admission inspires something of the wonder which some at least have felt on reading the expression ascribed to the great French philosopher—that the heavens declare *not* the glory of God, but the glory of Hipparchos and Newton!

The only lasting amaranthine flow'r on earth
Is virtue; the only lasting treasure, truth.—*Cowper.*

THE DANGERS OF HYPNOTISM.

IN spite of the many astonishing results that have been obtained through hypnotic treatment, we nevertheless must beware of anticipating more than it really can be expected to achieve. It is perhaps natural that the idea of rest should act soothingly upon the nerves, but, still, we must not imagine that the illusion that we hear well will cure deafness, or the illusion that we possess excellent eyesight will remove the blindness of a cataract. A correct view of the nature of ideas will guard us from erroneous expectations of this kind, and physicians therefore will have to limit the application of psychical means (and especially of hypnotism and suggestion) to such physiological conditions that can directly or at least indirectly be reached and influenced by psychical methods. Psychical cures, accordingly, must be restricted in the main to nervous diseases.

We consider it as our duty on this occasion to caution against the abuse of hypnotism that is frequently practiced by half-scientific people and sometimes even by prominent physicians. Hypnotism, as a means of cure, should be employed as little as possible, and in such cases only where natural sleep cannot be produced; and even then it must be employed with discretion.

Dr. Luys reports several cases in which patients hopelessly ill have been restored to health by the application of hypnotism. He speaks, for example, of a man who had been debilitated by insomnia. His digestion was impaired, his walk tottering, the nervous system prostrated, and his entire constitution was undermined. He had been given up by several physicians. Dr. Luys treated him several times in vain, but finally with success. The patient improved perceptibly, and soon was perfectly cured. To cure nervous diseases that are caused by insomnia, in fact, seems to me the main purpose to which hypnosis can profitably be applied.

There are also reported cases of inveterate vices and evil habits, (for instance dipsomania,) that are said to have been completely cured by means of hypnotic suggestion. And the applicability of hypnosis in certain desperate cases, when all other expedients have failed, may under exceptional conditions likewise be justified.

The rotating mirror invented by Dr. Luys seems to be the best and least injurious means of producing artificial sleep. It is an instrument with two wings not unlike the automatic fly-fan, only much smaller and studded with small glittering pieces of glass. The wings are fixed upon a pin, which when wound up sets them into a rapid revolving motion. The patient being comfortably seated in an arm-chair, is requested to stare at the mirror. The giddily rapid, monotonous

rotation by and by tires the eyes and produces a feeling of fatigue, so that the patient is soon very likely to fall asleep.

It is more than doubtful whether the anæsthesia of the cataleptic condition should be employed in operations. Narcotics have hitherto proved by far more reliable and less injurious.

It does not seem advisable to employ the cataleptic state in cases of childbirth, as Dr. Luys and other French physicians have done. To be prepared for the occasion, it is necessary that many weeks previous to her confinement, the woman be hypnotized daily. If this were not done, the hypnosis would most likely not succeed at the critical moment. But this exemption from the throes of a few painful hours are bought at an exorbitant price! We have to consider that henceforth throughout the whole life the woman will remain predisposed to hypnotic states. And still worse: a fatal germ of the same predisposition is most probably implanted in the infant born.

A predisposition to hypnotism, at all events, must be regarded as one of the most dangerous kinds of disease. It is an extremely serious misfortune. A predisposition to hypnosis is a diseased, abnormal state of the nerves. Individuals who either by nature or through artificial methods possess a predisposition of this kind, are but to a limited degree their own masters. Not only the hypnotizer himself has an absolute control over them, but every stranger, by skillful manipulation, may influence their soul-life, and can render them serviceable to his private ends.

It is maintained by some hypnotizers that encroachments of this sort can be prevented, by imparting to the subject the suggestion, that he should not submit to be hypnotized by any one but his own hypnotizer or physician. But, as a matter of fact, every suggestion can be counteracted or modified by another suggestion. An impostor might easily introduce himself as the physician's deputy, and there are a hundred other means at his disposal. Once having been admitted into the confidence of the subject, he will quickly usurp the entire control over his or her soul.

We certainly should regard it as a national calamity if the majority of a people had acquired a predisposition to hypnotism. The independence of individuals would be destroyed, for that trait consists in the capacity to resist obnoxious suggestions. It is generally admitted by all psychologists that hypnotism affords an easy means for criminals safely to commit their crimes through unconscious middle-men as instruments of the deed. The danger of hypnotism is increased by the possibility of "timing" the execution of a post-hypnotic suggestion. Forel says upon the subject:

"The enormous importance of suggestion at appointed time or 'à échéance' is manifest. We are able for a definite period of

time to predetermine the thoughts and resolutions of hypnotized subjects when the hypnotizer himself is no longer present; in addition one can give to the suggestion the appearance of a free decision of the will. One is further able to suggest to the hypnotized subject the belief that the impulse did not come from the hypnotizer. Nay, with highly suggestible people we are even able successfully to suggest the total amnesia of the hypnotization: 'You have never been hypnotized,' we may say; 'if you are asked, swear before God, that in all your life you have never once been hypnotized; I myself have never hypnotized you.'

"I am perfectly aware, that in this consists, perhaps, the most appalling danger of hypnotism in the administration of criminal justice."

The dangers to which hypnotic subjects are exposed in the respect that they may become instruments of crime in the hands of unscrupulous criminals, great though they may be, are trifles compared to the dangers rising from their own auto-suggestions. Hypnotic subjects cease to be able to control their own ideas. Hallucinations may come to them at any moment and lead them to crimes or to follies of all kinds.

Dr. Luys, who, if he is partial, is rather prejudiced in favor of hypnotism, says:

"Hypnotized subjects, by the very fact that they are under the influence of a quite special mental state, or even subjects that are neuropathic by nature, are apt to present this strange phenomenon, that through the automatic action of the cells of their brains they will produce truly autogenetic suggestions, just as insane persons are seen to create fixed and spontaneous ideas. At one time they will tell you, that they have met with some extraordinary experience, have received certain strange proposals, are acquainted with persons of high social standing; or else, they will accuse some acquaintance of their circle of having spread abroad slander, of robbing, or of seeking to wrong them. Still, all these denunciations are made with a mien of absolute sincerity, and if one did not know such subjects from their peculiar psychological point of view, one might really be tempted to lend faith to their statements. It is precisely mental habits of this kind that frequently cause the society of hypnotic subjects to prove so irksome and well-nigh unendurable in the wards of public hospitals."

"This likewise constitutes a point of contact of hypnotism with insanity, because these cases of suggestions very frequently are produced either by sensorial illusions or by persistent hallucinations, and from this point of view hypnotic subjects present the exact state of mind of persons laboring under the hallucination of persecution."

The dangers arising from auto-suggestion and self-hypnotization are confirmed almost by every one who is familiar with the subject. Professor Lombroso,* of Turin, reports among many other instances the following case.

"An artillery officer, who was hypnotized at a public séance, afterwards became almost insane. From time to time he had attacks of spontaneous hypnotism at the sight of any shining object. He would follow a carriage lamp in the street, as though spell-bound. One evening, if his fellow-officer had not saved him, he would have been crushed to death by going directly towards an approaching carriage. A violent hysterical crisis followed this and the man had to take to his bed."

* See Frederik Björnström, *Hypnotism*, Humboldt Library, No. 113, p. 123.

The whole purpose of a liberal education consists in the freedom, independence, and self-reliance of the individual. Accordingly, we can observe that in countries where men and women are raised with a love of liberty and independence there are comparatively few symptoms of hypnotism. In countries in which children are brought up to become mere instruments in the hands of priests, the inclination to hypnosis is comparatively strong. Let us not increase the natural tendency of weak characters to allow themselves to be guided blindly; and therefore let us be careful to avoid the dangers of hypnotism.

The growing generation should learn, neither to shut out new ideas nor indiscriminately to accept them, but to receive them with critique and to arrange them in proper order in the storehouse of general knowledge. This is necessary above all in a republic in which every citizen is called upon to take part in the government of the state, in the election of the authorities, and in the framing of the laws. P. C.

GENERALIZATION.

PEOPLE agree far better when they talk about the concrete than the abstract. Abstractions and generalizations play the mischief with clearness and unity of thought. A fog seems suddenly to settle down on our minds. Generalizations, when in the hands of the uneducated, are snares which fatally entrap many a mind that naturally has a clear perception of individual ideas. It takes a mind of some training to generalize justly—to grasp largely an abstract idea.

When I am asked (as sometimes we are in literary club conversations) if I think ethics or the moral sense by itself and unsupported by the religious sense, or by the imagination, or by the instinct of fraternity among men, is sufficient to sustain society, I am led towards a trap into which I have no idea of tumbling. I reply, "These are imperfectly abstract ideas; generalizations which are barren of any useful resultant thought until carried higher up." And I would rather not answer questions so stated; or, if I give an answer, it will only be by asking a counter-question, "What do you mean by ethics or the moral sense?" And if it is answered, "The moral sense is the natural instinct of right and wrong," then I say, "Every one has this instinct, but some infinitesimally, others in superabundance." And this brings us right down to the individual experience or the concrete fact, and the answer should be, "Any given society will be governed by the majority of consciences, whatever those consciences may be. If the prevailing conscience of a nation, for instance, be sound, full, well-balanced, that nation will conduct itself well, if not, ill." Then as to the relation of the moral to the religious sense, I must make the same statistical form of thought, and say, "Those individuals who unite a good conscience with a high and sound religious instinct are the best specimens of men, *as so far defined*; and a majority of such will be the best safety for a State," and *vice versa*. But other elements must be recognized, such as the imagination, the affections, the sentiment of brotherhood.

Of course, I know that none of us can think or speak without rising into the abstract. It is a natural tendency of the mind, and one of the noblest—the true sign of progressive manhood, of the wise and philosophic mind. But wise men and philosophers of the highest grade are exceedingly rare. Individual and unrelated ideas come first in the order of mental development; and these

flow primarily from spontaneous sources. Abstractions and generalizations come later. The first correspond to melody in music, the second to harmony. The mass of men love melody—the musicians need the fuller developments of harmony.

There is a kind of pseudo-conservatism which may sometimes come from imperfect generalization or the habit of shaping one's opinion or belief outside and off the philosophic centre of gravity. And the same might be said of certain kinds of scepticism which are often but the protest of uninformed and somewhat crotchety minds against half-truths that set up for whole truths, and shams that would persuade the world that they are realities.

Sound generalization becomes more difficult in proportion to the complexity of human life. Therefore, the continual need of a broader philosophy as we advance from the simple and mere homogeneous relations towards the heterogeneous.

C. P. CRANCH.

CORRESPONDENCE.

NEO-PHRENOLOGY—AN EXPLANATION.

"If it be possible to perfect (rationalize) Mankind, the means of doing so will be found in the Medical Sciences."
—Descartes.

To the Editor of *The Open Court* :—

Very few words seem necessary to clear up the difficulty the Editor of *The Open Court* finds in my usage of the terms *Self* and *Ego* as stated in his note appended to my article "On the Auto-plastic Synthesis of the Universe," at page 2098 of this serial for February 13th last. I use the two words as synonyms and imply by them the complete subjectivity of object—the latter being entirely foreclosed by immersion in the former. So that the subject-Self, or Ego, or Solipsismal Monism, is substituted for that animistic Dualism, upon which *inter alia multa*, Religion, in its usual sense of Divine Worship, is based. For it is self-evident that if Self be all in all, no Worship is possible except Self-Worship—a position which necessarily relegates the object of any form of Worship to the status of Fetichism, i. e., of a self-created *Eidolon*. Wordsworth's nun, "breathless with adoration," never really gets out of self-adoration and self-absorption and thus *au fond* of self-communion. After all, this is nothing more than Kant's negation of Thing, *per se*, the sole alternative to which being Thing *per me*, only reasoned out with a completeness impracticable to that supreme thinker, from the state of the physical and natural sciences at his epoch, when none had any existence except Newtonian Astronomy. Anatomy, or Somatology, is, as nearest to Self, or rather "very Self" itself, the real focus, or burning point of all the other more distal ones. And yet, even in our own day, the latter receives least attention. It is quite ignored, for instance, in Professor F. Max Müller's article: "The Cradle of the Aryas," in the same issue of *The Open Court* (page 2087), in which the great philologist enumerates, as essential to education, Geology and Geography, Astronomy, History, Philology, Religion, and Philosophy, not mentioning that science in which all the others meet, and without which, indeed, all Science, in the most real and literal sense of the nullity, were Nescience. It is Anatomy, and not Philology, as he asserts, "that teaches us what we are," or at least lays the only sound foundation for "Self-Knowledge, Self-Reverence, and Self-Control," which alone, as Lord Tennyson sings "lead life to Sovereign Power." *Leib*, which is German for Body or Soul really connotes both that word and life. Indeed, no words have yet been, or are ever likely to be coined, to express meanings which transcend Matter and Life—Psyche, Pneuma, God, i. e., Lord (Khoda), Saint, Spirit, Salvation, etc., are examples: all being ultimately resolvable into anatomical or Medical terms. When we define Life "as the sum total (Bichat, *tout ensemble*) of the organic functions," we get rid, at one blow, of soul,

either animal, vegetal, or mundane, and with that riddance we foreclose, on apodictic data, the whole merely provisional Spiritual realm of shadows.

R. LEWIS, M. D.

LONDON, February, 1890.

BOOK REVIEWS.

INEBRIETY Its Etiology, Pathology, Treatment, and Jurisprudence.

By Norman Kerr, M. D., F. L. S. London: H. K. Lewis, 136 Gower Street, W. C.

The present work, of which we have the second edition before us, is the outcome of a quarter of a century of experience in dealing with cases of inebriety and of a careful examination of the results of the researches of others. Dr. Kerr claims to have endeavored to furnish merely a systematic treatise on the disease of inebriety, "avoiding any discussion of the general questions involved in the temperance movement as foreign to his purpose." His position is that inebriety is "a disease, as curable as most other diseases, calling for medical, mental, and moral treatments"; reference is had only to "those in whom either the habit of drinking or some inherited or other cause has manifestly set up the diseased condition we designate inebriety, the characteristic symptom of which is an overpowering impulse to indulge in intoxication at all risks"; it belongs to the group of "diseases of the nervous system," and its dearest ally is 'insanity'. Though Dr. Kerr is a firm believer in our responsibility to a higher power for the proper use of our faculties, and acknowledges that intemperance has its religious and moral aspects, yet he protests against the senseless sentimentalism that regards inebriety as a vice, a sin against God, a breach of the moral law; showing how modern scientific inquiry has demonstrated the fact that the phenomena of this disease are mainly physical and the outcome of natural law.

Five chapters are devoted to an exhaustive classification and review of the forms of inebriety; four to their etiology; two to their pathology; five to the treatment of the disease; and five to its medico-legal aspects. The first 'indication' of treatment is the withdrawal of the alcoholic poison, immediate and absolute; the second 'indication' is the removal and counteraction of the exciting cause; the third 'indication' is the reparation of the physical damage wrought by the inebriety. But the details of treatment are too minute to be entered upon here; for this work itself must be consulted; suffice it to say, that the suggestions and methods of Dr. Kerr appear to be eminently sound and in wholesome accordance with the natural laws and conditions of life.

The chapters on the medico-legal aspects we commended to our legislators and lawyers; first with regard to the necessity of legislation touching the cure of inebriates and the protection of the community against the acts of inebriates, and, secondly, with regard to the criminal responsibility of persons for acts committed in the inebriate condition. With respect to the latter problem, Dr. Kerr says:

"Our present jurisprudence, so far as it relates to inebriates, was framed at a time when the physical aspect of inebriety and the diseased condition of a large proportion of inebriates were not even suspected, except by a very few far-seeing philosophic medical observers. In those days, pains, penalties, rebuke and contempt were hurled at drunkards of all degrees and varieties indiscriminately. They were regarded but as vicious and depraved sinners. Now we know better. Kindness, persuasion, and help, are the weapons which we employ to-day in our more judicious warfare with the drunken habit. Medical science has revealed to us the existence of a class of inebriates who are the subjects of disease, as clearly defined as are neuralgia and nervous debility. Let legal luminaries thoroughly understand that in many instances inebriety has a pathological origin, takes its rise in a departure from bodily and mental health, from a morbid state of some parts of the brain or its membranes, whereby the function of that organ is perverted, or from other unhealthful conditions, and that this inebriate tendency is often implanted as a transmitted property in the body and brain during intra-uterine life. Let it also be distinctly understood, at the same time, that there are many drunkards who do not appear to be the subjects of a morbid affection, whom no one would desire to excuse on the ground either of insanity or disease."

Dr. Kerr suggests a commission of legal and medicinal experts to inquire into the modification of inebriate criminal responsibility indicated by modern science. But in giving evidence in a criminal trial, the medical witness should testify only to the pathological, physical, healthy, or diseased condition of the accused; the application of the evidence is for the Judge and the Jury.

Dr. Kerr's book is a comprehensive and scholarly discussion of a subject very generally misunderstood. We know of no work in which the exposition of the nature and attributes of inebriety is so popularly and yet so scientifically set forth. "The Proceedings" of the Society for the Study of Inebriety, of which Dr. Kerr is president, form an appropriate commentary and practical confirmation of the principles laid down in his work. J. S. K.

LIFE AND MIND: ON THE BASIS OF MODERN SCIENCE. By Robert Lewins, M. D. London: Watts & Co.

HYLO-IDEALISM OR AUTO-CENTRISM: A UNIFICATION OF NATURAL AND TRANSCENDENTAL PHILOSOPHIES. On the Lines of Thought laid down by Robert Lewins, M. D. By H. L. C. London: Watts & Co.

HUMANISM VS. THEISM; OR SOLIPISM (EGOISM)—ATHEISM. A Series of letters by Robert Lewins, M. D. London: Free-thought Publishing Co.

It is dangerous for philosophers to use words in any other than the common usage. If they are obliged to employ terms in a new and at the same time in a very definite and very concise sense, they should select the most appropriate ones and define them as their case may demand. If words be selected that have acquired a special meaning and to which a kind of an odium has attached, it is not advisable to employ these words to express a great and high ideal. We cannot say that they who do so are wrong, but they certainly are most likely to be misunderstood. Thus the words "soul" and "ego" and "self" are terms that in popular speech mean about the same thing, and yet they are different. Miss Naden, in an expository preface to certain letters of Dr. Lewins, says: "Self, in common parlance, signifies a little private enclosure, jealously 'walled around': in philosophical language, it is coextensive with the cosmos. Every man is his own universe. Ascetics taught self to feel its meanness; we teach self to feel its greatness. The ideal here set forth is fulness of life, gained from conscious unity and solidarity with the lives of others." (*Humanity vs. Theism*, p. 10.)

A slight alteration in the meaning of a word may alter philosophies and religions, and *vice versa*, the alteration of religious and philosophical thought will effect the meaning of its terms. Take for instance, the words God and Devil. There was once a sect that worshipped the devil; understanding by the term devil that power which produces progress. And should God come to mean conservatism and stagnation in State and in Church, our clergy ought not to be astonished to see a new sect of serpent-worshippers arise and enter the lists against God and the very name of God. But after all their opposition would be a mere matter of definition. The heathenish gods were turned into devils when Christianity succeeded paganism; not because they were real devils, but because their divine attributes had been conferred upon the God of the Christians.

By "self" Dr. Lewins understands the subjective world, viz., our conception of the world, *Die Welt als Vorstellung*, as Schopenhauer says. This world must be distinguished from the objective world, the universe of real existence. But this distinction is not sufficiently set forth in the little pamphlets above-mentioned. The subjective world is a representation of the objective world and may be such with a degree of perfection that varies. Indeed, the subjective world in every man is constantly changing and we can very well imagine our conception of the world to be more exact,

more truthful, and more correct than it is. Nay, this idea is a part of our self, and we feel, naturally, the need of progress, of improvement, of intellectual growth. Dr. Lewins says: "Higher than himself no man can think, his own perceptions and conceptions constituting his entire universe" (*Life and Mind*, p. 27). This is said to overthrow the beliefs of "all that has been said or sung, in pre-scientific ages, of God and Gods"; and I believe that all that Dr. Lewins means by it, is correct. But the statement is certainly misleading. In our own self we find conceptions which constantly compel man to think "higher than himself." We call these conceptions "ideals" and their presence in the human soul is the condition of ethics. We may widely disagree in terminology from Dr. Lewins, yet upon the whole we find many points of contact and look upon Hylo-idealism as an honest attempt to establish a unitary philosophy. Thus, in the pamphlet *Hylo-idealism*, (p. 11) by H. L. C., we read: "Matter is comprehended in idea and idea is comprehended in matter, both propositions being equally valid—i. e., each assumable for momentary purposes of argument, and neither having the slightest precedence over the other. Therefore—All hail the One Unity of All Existence."

EVOLUTION. Popular Lectures and Discussions before the Brooklyn Ethical Association. Boston: James H. West.

This volume of 408 pages (\$2.00 postpaid), which forms perhaps as good a general introduction to the study of evolution as any obtainable, contains the following essays: "Herbert Spencer, His Life, Writings, and Philosophy," by Daniel Greenleaf Thompson; "Charles Robert Darwin, His Life, Works, and Influence," by the Rev. John W. Chadwick; "Solar and Planetary Evolution, How Suns and Worlds Come into Being," by Garrett P. Serviss; "Evolution of the Earth, The Story of Geology," by Dr. Lewis G. Jones; "Evolution of Vegetal Life," by William Potts; "Evolution of Animal Life," by Rossiter W. Raymond, Ph. D.; "The Descent of Man, His Origin, Antiquity, Growth," by E. D. Cope, Ph. D.; "Evolution of Mind, Its Nature, and Development," by Dr. Robert G. Eccles; "Evolution of Society, Families, Tribes, States, Classes," by James A. Skilton; "Evolution of Theology, Development of Religious Beliefs," by Z. Sidney Samson; "Evolution of Morals, Egoism, Altruism, Utilitarianism, etc.," by Dr. Lewis G. Jones; "Proofs of Evolution, The Eighth Main Scientific Arguments," by Nelson C. Parsball; "Evolution as Related to Religious Thought," by the Rev. John W. Chadwick; "The Philosophy of Evolution, Its Relation to Prevailing Systems," by Starr H. Nichols; "The Effects of Evolution on the Coming Civilization," by the Rev. Minot J. Savage. A glance at the titles and list of authors furnishes sufficient material for a judgment of the scope and worth of the book's contents. The publisher is to be thanked for placing this collection before the public.

BEITRÄGE ZUR EXPERIMENTELLEN PSYCHOLOGIE. By Hugo Münsterberg. Heft I. Freiburg, i. B.: J. C. B. Mohr.

This little book is the first volume of a series of contributions to experimental psychology which Prof. Hugo Münsterberg intends to publish in the course of the ensuing years. These publications are not intended to constitute a collection after the manner of a magazine or a journal, but are to contain descriptions of the experiments made by Prof. Münsterberg in the psychological laboratory at the University of Freiburg. It is stated in the preface that the writer is "the author of every single line." The present volume contains the introduction "Consciousness and the Brain," and experiments on "voluntary and involuntary association of ideas."

Prof. Münsterberg is a disciple of Wundt. Like his great master, he takes his stand on the basis of a parallelism: viz., that the psychical and the physical are not two different provinces

such that we may pass from the one to the other; but must be conceived as two parallel lines of phenomena. The psychical is as it were the interior of the physical; it accompanies it; and the bodily processes are nowhere interrupted in their mechanical course.

Professor Münsterberg uses for his experiments the same instruments and upon the whole follows the same method as his master. While the French psychologists cultivate a special taste for the investigation of morbid states, Professor Wundt and his school prefer the less ostentatious method of experimenting upon healthy subjects and arriving at exact data by measuring the time required for reactions of variant complexity and other psychical processes. Professor Münsterberg takes exception to Professor Wundt's standpoint with regard to the theory of consciousness, yet, it appears to us, he fails in proving the superiority of his "*Umschaltungsversuch*"—the attempt to interpret facts in a different way. A full explanation would lead us too far into detail.

A very good distinction is made between two meanings of the ego; viz., (1) "The state of consciousness" is the ego-subject, and (2) a combination of those ideas which constitute the personality of a man is the ego-object. The ego subject may become conscious of the ego object not otherwise than of any other object, yet both are entirely different. The ego-subject has nothing in common whatever with the ego-object.

Professor Münsterberg's *Beiträge* certainly belong to that class of publications which a psychological specialist cannot pass by unnoticed and the first volume, it is to be presumed, will remain the most important part of the series, since whatever the results of future experimentation may be, the first chapter lays down the principles from which the experimenter starts.

AUGUST COMTE, *Der Begründer des Positivismus. Sein Leben und Lehre.* By Hermann Gruber. Freiburg i. B.: Herder'sche Verlags-Buchhandlung.

The author regards August Comte as the originator and representative of Positivism. "Historically," he says, "there can be no doubt that Comte's system is the true Positivism." The cardinal points of Positivism, we are told, are: (1) The positive method, viz., the direct observation of facts; (2) The rejection of everything supersensible and everything absolute, as God, Soul, Substance, the Essences of Things, etc.; and (3) The replacement of the God-idea by the idea of humanity. In the preface Mr. Gruber takes delight in alluding to the controversies between Agnostics and Positivists and quotes for his own and his readers' amusement some of the names they have called each other. Himself being in opposition to both parties he stands between them as an umpire. Upon the whole he sides with Comte; at least he states the priority of Comte's views over Spencer, and declares that the latter differs only in unessential subjects.

The little book treats of Comte's life and philosophy from the standpoint of Roman Catholicism; all the data are given with scientific exactness and great impartiality. Considered as an historical work, it possesses much merit for its completeness and roundness. Comte's genius as well as his extravagances are neither exaggerated nor minimized, and new light is thrown by recourse to the recent publication of new documents upon Comte's relation to his wife. Mr. Gruber claims that even Jodl, being at present the most trustworthy authority in the History of Philosophy, is mistaken in following Littré's account too closely, Littré appearing as a partisan in these quarrels.

Comte's philosophy being full of vagaries, the author concludes that the Catholic doctrine alone has fulfilled its claims and still fulfills them; and that the Saints of the Church are the noblest, the greatest, and most ideal men. However, even if we grant that the heroes of the Catholic Church may have been great, we cannot see that they alone were the greatest and noblest. The

world is larger than the pale of the Church; and in our judgment the greatest minds since Luther have been without that pale. Comte was the first to attempt the structure of a positive philosophy; but if we concede that his attempt was a failure, how can we declare that for that reason positivism itself is a failure. Comte's failure is partly due to his contempt of other philosophers, whose works he did not take the trouble to study; and partly to his fantastic views of religion which are a residuum of his Catholic surroundings.

DIE PSYCHOLOGISCHE FORSCHUNG UND IHRE AUFGABE IN DER GEGENWART. *Akademische Auftaktrede.* By Dr. Heinrich Spitta. Freiburg i. B.: J. C. B. Mohr.

Says Professor Spitta: "Experimental Psychology proposes to disintegrate the content of consciousness into its elements, to study them in their quantitative and qualitative properties and to discover their conditions of coexistence and sequence in an exact way." Yet he does not believe that Experimental Psychology will ever supersede the "older" the "metaphysical" psychology (p. 27.); "experimental psychology at the best will claim one part only." In perusing this lecture, which was delivered upon assuming the assistant professorship of philosophy at Tübingen, we are constrained to doubt whether the young professor has fully grasped the principle and purpose of experimental psychology. Experimental psychology is not a part of the science of the soul, but a new method to be applied to all psychical phenomena. It cannot constitute one province of it merely.

PROBLEMS IN AMERICAN SOCIETY. SOME SOCIAL STUDIES. By Joseph Henry Crooker. Boston: George H. Ellis. Chicago: Charles H. Kerr & Co.

The six essays of this volume entitled respectively "The Student in American Life," "Scientific Charity," "The Root of the Temperance Problem," "The Political Conscience," "Moral and Religious Instruction in our Public Schools," and "The Religious Destitution of Villages," are designated by the author as simply suggestive contributions towards a clearer understanding of the great problems of modern society. They are pleasantly and sensibly written. Many points of peril and weakness Mr. Crooker touches with a skillful hand. The essay on "The Student in American Life" may be profitably pondered by our young men. Speaking of the religious destitution of villages the reverend gentleman says: "The preaching that will help to remove this religious destitution from our villages must ignore the old controversies, take the great facts of the religious life for granted, and affirm them with fresh illustrations and overmastering earnestness."

A list of good bibliographical references is prefixed to each essay.

NOTES.

Professor Felix Adler, of New York, will lecture this evening, Thursday, March 20th, at Emerson Hall, 45 Randolph Street, Chicago, on *Is it Possible to Teach Religion to Children?* (Admission 50 cents.)

The Chautauqua University proposes a system of "University Extension Lectures" after the English plan. Prospectuses are obtainable from Frederick Starr, New Haven, Conn., Registrar Chautauqua University.

Prof. F. Max Müller began at Glasgow, on Tuesday, February 11th, his second course of Gifford lectures; he was greeted, says the *Christian World*, with enthusiastic applause. In the present course, the Professor treats of Natural Religion in one only of its "three great manifestations,"—namely, as physical religion.

The Open Court.

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THE HUNGER AFTER RIGHTEOUSNESS.

THERE is a most dangerous superstition prevailing among great masses of people that morality is a good thing as an ideal, but a bad thing for the purposes of practical life. A business man who wants to succeed, it is imagined, can succeed by immoral means only. This is a superstition, for it is not true; and it is a dangerous superstition, for it leads those who believe in it and act accordingly, into ruin. Morality, if it be true morality, will lead to life, it will preserve, it will produce prosperity, and afford a noble satisfaction never mingled with regret.

The deep-rooted error that immorality alone can insure success, seems to have originated through a strange combination of misconceptions, favored by special conditions and strengthened by exceptional instances of successful impostors. Our very language betrays us into grievous blunders. We speak of a "smart" business man and understand by "smart" now the prudent, industrious, judicious merchant, and now the sagacious, deceitful trickster. Prudence is indispensable to insure success, but trickery is not. Trickery will go but a little way and, like the crooked boomerang, it will unexpectedly fly back upon its originator.

Closely connected with this vagueness of speech is the vagueness of our views of morality. Morality is too often tacitly identified with so-called goodnaturedness and with inability. It is proverbial to speak of incompetent men who are free from other gross faults as "good people, but bad musicians"; meaning thereby that they are morally blameless, yet still disqualified for the business or profession in which they are engaged. Such men are popularly called 'good,' i. e., morally good; but they are not good. They lack that moral nerve that enables us to adapt ourselves to our work; they lack that moral energy of self-discipline by which alone we can train and educate ourselves to become competent in our profession.

The negative morality of doing no harm to anybody is not as yet morality; it is, at best, sentimentality. True morality has positive ideals, and foremost among our moral ideals must be the aspiration of every individual to become a useful member of society, by contributing something to its weal and wel-

fare. To do some work which gives us pleasure, dilettanteism in art or science, in business or agriculture, etc., is not as yet sufficient; our work must be a service to society, it must stand in demand, otherwise we cannot and ought not expect any return for it.

A certain indifference with regard to honesty easily arises from an over-prosperous condition of society. If men earn money without earnest effort; if they live in plenty, and find the resources of all departments of industry practically unlimited, they become indulgent towards the depredator who takes more than his due, and smile at the thief who nimbly skips away with his spoil. He who plunders the public treasury is not taken to account, because the loss is not so seriously felt. A country in an unusual state of prosperity is not so much in need of honesty as a poor nation, and accordingly the moral instinct, the moral sense of that country remains comparatively undeveloped. If man did not stand in need of intelligence, if he could live without thought, he certainly would never have developed brains, and humanity would still lead an unratinal existence. The same is true of morality: it is developed among mankind because and to the extent in which man wants it. And we do want it indeed; we are most intensely in need of it, for society could not exist without it.

A prosperous nation, I say, is not so much in need of morality as a poor nation, where the struggle for existence is hard and competition is fierce. Yet the people that are not at present in such great need of morality will soon come to that need. History teaches that the moral, the industrious, the patient poor people will in time most successfully compete with the rich and the opulent. As soon as opulency has reached that degree in which the need of morality is no longer felt, the decline of a nation sets in. A crisis in her social life is impending. The down-trodden will complain of their oppressors; they will cry out for justice; and if that justice be not freely given, the whole nation will suffer for it, and the country once so prosperous will lie deserted and in ruins. Let the monuments of the great nations that prospered before us and passed away be a *mene tekel* for us to-day.

When the nation of Israel was in a social condition similar to that which, to a great extent, prevails among

us now, the prophet Amos arose and lamented the moral depravity of his people. He said:

Thus saith the Lord: For three transgressions of Israel, and for four, will I not turn away their punishment. For they sell the righteous for silver, and the needy for a pair of shoes. And pervert the cause of the afflicted. They lay themselves down upon pledged garments near every altar; and drink wine procured by fines, in the house of their gods.

Amos foresaw that such a state of society could not remain as it was. He said:

And I will turn your feasts into mourning and all your songs into lamentation; and I will bring up sackcloth upon all loins and baldness upon every head; and I will make it as the mourning of an only son, and the end thereof as a bitter day.

The need of morality, its indispensableness for the welfare of the nation as well as of every individual, must at last be felt, and under the impression of this truth the prophet continues:

Behold the days come, saith the Lord God, that I will send a famine in the land, not a famine of bread, nor a thirst for water, but of hearing the words of the Lord.

Amos's prophecy is as true to-day—and we repeat it in this conviction—as it was about two and a half millenniums ago. There will come upon us disorder and misery, our feasts will be turned into mourning unless we are made aware of the want of honesty, of justice, of morality. The expression "the words of the Lord" in the prophecy does not signify belief in a supernatural revelation; and if it did, we do not quote it in that sense. "The words of the Lord," as we interpret the term in accordance with its context, mean the moral commands that will forever remain the substance of religious aspirations. There will arise, as Christ said, almost two thousand years ago, "a hunger and thirst after righteousness." Those who feel that hunger will partake of the blessing that in the nature of things is intimately connected with it, that will follow upon it, as the effect follows upon its cause.

Says Amos:

For, lo, I will command, and I will sift the house of Israel among the nations; like as corn is sifted in a sieve, yet shall not the least grain fall upon the earth.

The prophecy of Amos is constantly being fulfilled in the process of the survival of the fittest. Among all the nations those alone will survive and fill the earth that are pervaded with the moral spirit. A society based upon justice will be stronger than a society in which an aristocracy oppresses the other classes of the people. A nation in which the rich devise laws to protect themselves against free competition and in which the poor are prevented from bettering their condition, carries a germ of weakness within itself and will in the end have to pay for its errors dearly. The strong will conquer and the weak will go to the wall—that is the natural law of evolution. But bear

in mind that there is no strength unless it be supported by morality. The social law is a power—a power that destroys those who do not conform to it. Says the prophet:

Yet destroyed I the Amorite whose height was like the height of the cedars, and he was strong as the oaks. Yet I destroyed his fruit from above and his roots from beneath.

Rocks are demolished by silently-working atmospheric influences. And the strongest nations perish as soon as they deviate from the path of righteousness and the spirit of progressive morality. A constant selection takes place in the struggle for existence, and humanity is sifted like as corn is sifted in a sieve.

Let us learn the truth and act accordingly, and we shall live. Let us not waver in the path of righteousness, but do faithfully some useful work in the service of humanity, lest we become like the chaff which the wind driveth away.

NATURE AND NURTURE.

BY MRS. SUSAN CHANNING.

GALTON, in his *English Men of Science*, defines nature as "all that a man brings with him into this world, and nurture as every influence from without that affects him after birth," and maintains that when nature and nurture compete for supremacy on equal terms, nature proves the stronger.

Helvetius, Condorcet, and their school maintain that the infant of genius in no way differs from other infants, only that certain surprisingly favorable influences accompany him through life. They hold that if a statue could be endowed with five senses it would become a man; but as Carlyle said, "I should as soon agree with this as to believe an acorn might by favorable influence of soil and climate be nursed into a cabbage or a cabbage into an oak." We do not deny that the highest natural gifts may be starved by a defective education. Plato, who believed that innate ideas formed the basis of all our conceptions, admitted that those ideas had to be roused into action by education and by having the mind made acquainted with their copies, with which the external world was filled, and Locke, that there can be no thought, no ideas, until the mind comes in contact with environmental agencies, and Leibnitz, that there is nothing in the intellect which was not first in the sensation, except the intellect itself. Still, the mind, as Kant said, furnishes an element not found in our sensations, and this element we maintain is a congenital endowment, and as no one by thinking can add one cubit to his stature, neither can education do more for a man than stimulate his faculties and develop latent ability.

Every one admits that poets are born not made, but efficiency in anything also means that you were born with a faculty which enables you to do the thing well,

otherwise your work would lack finish. Education and circumstances do much for us, but they cannot overcome an intrinsically weak brain. The pains-taking capacity is necessary to all great achievement, yet it does not follow that the oftener a thing is done the better it will be done. That depends on a man's knowledge and the depth and penetration of his intellect.

The power of adverse circumstances to rouse the mind into action is very great: Mirabeau enters, obscure, into a dungeon of Vincennes, to atone for the offense of carrying off Madame de Monier from her aged husband, and he quits his prison a writer, orator, and statesman. Great thoughts are not possible where one lives much in excitement. To develop the philosophical and critical mind one must live in retirement. Cervantes and Bunyan in prison did their best work, Mahomet had his trance in the mount above Mecca, and Christ departed from the crowd to the Mount of Olives to endure his agony and receive spiritual exaltation. But to contribute to conditions or accident the achievements of these men is to reason from insufficient data. The man of ability is, as Galton shows in his work on *Heredity*, one whose nature when left to itself, will, urged by an inherent stimulus, climb the path that leads to eminence; one, who if hindered and thwarted, will fret and strive until the obstacles are overcome. The lazy and indifferent are always saying, "I know that thou art a hard master, reaping where thou hast not sown." They like to attribute their failures to conditions, for to admit anything else is to admit the superiority of their neighbors. It is, however, by a wise use of our natural gifts and inborn tendencies that success is attained.

Buckle forfeited his reputation as a careful observer and profound thinker by attributing too much to conditions and not enough to a people's inborn tendencies. He asserts of the Arabs that they remained a rude, uncivilized people because of the aridity of their soil and their poverty, but the moment they had conquered Persia, Spain, and the Punjab, their whole character changed and from a race of shepherds became founders of empires and patrons of learning and art. John Fiske, to show the fallacy of this reasoning, says, "We have only to note that the Turks when they left their barren steppes and became masters of one of the finest geographical positions on the globe, never directly aided the progress of civilization."

The anthropologist in his effort to ascertain why some nations advance and others remain stationary, must look to the innate qualities of the race and not to environment. The serious consideration of the historian, is the inquiry, in what way Rome so early attained the prominent political position which she held in Latium, so different from that which the physical

character of the locality would have led us to anticipate; the site of Rome was less healthy and less fertile than that of most of the old Latin towns—neither the vine nor the fig grew well in the immediate environs, and there was a want of springs yielding a good supply of water. Latium was anything but attractive, it was an unhealthy and unfruitful spot, but this did not prevent the inhabitants from developing a rapid and surprising prosperity. Rome's one natural advantage, the Tiber, and the clear-sighted genius and energy of her people were the cause of her eminence. Holland, a sediment, a mere alluvium of the river, with the sea ever ready to engulf her, is a notable example of the power of a race to overcome conditions, and to make the wilderness bloom like the rose. It was the clear grit and sturdy qualities of this race that enabled its son, William of Orange, to reply to the Duke of Buckingham, when that nobleman said to him, "Do you not see that the destruction of the United Provinces is inevitable?" "There is one certain means by which I can be sure never to see my country's ruin, I'll die in the last ditch."

It is the element in the two ova which similarly exposed in the same pool, makes one a fish and the other a reptile. To tell how it happens that a microscopic portion of a seemingly structureless matter should embody an influence of such a kind is, according to biologists, impossible. All we know is that there is born in man an essence, to use a phrase of the schoolmen, which makes him the kind of man he is, and which education has but a limited power to modify. It is with men as it is with plants and animals, the higher they are in mind and structure the less they resemble the habitat or medium in which they live. The average man or woman cannot entertain ideas repugnant to the atmosphere in which they live, while the great man is self-centered and moves along, never stopping to see if others are following. Socrates showed none of the frivolity of the refined and corrupt age to which he belonged. He took for his model the abstract idea of a true philosopher, and throughout his life exhibited an instance of the perfectibility of human nature. He was the instructor of his countrymen not for love of lucre or reputation, but from a sense of duty. Dr. Channing in his "Remarks on the Character of Fenelon," wrote, "When we think of Fenelon in the palace of Louis the Fourteenth, it reminds us of a seraph sent on a divine commission into the abodes of the lost; and when we recall that in that atmosphere he composed his *Telemachus*, we doubt whether the records of the world furnish stronger evidence of the power of a divine virtue to turn temptation into glory and strength, and make even crowned and prosperous vice a means of triumph and exaltation."

We must not look to men's conditions to explain

their conduct or achievements. Of course, as Mill says in his essay on *Liberty*, "Different persons require different conditions for their spiritual development, and can no more exist healthful in the same moral, than all variety of plants can exist in the same physical atmosphere." What is help to one man is a hindrance to another.

Is it not then a pity that parents and all who have the care and education of the young, should not endeavor to surround them with the conditions necessary to their moral and intellectual growth? To force youths into employments and professions for which they have no talent, because they are regarded as more honorable or lucrative, is a crime against the individual and society. Think what the world of science, poetry, and the drama would have lost if nature had not dominated over nurture in the case of Darwin, Agassiz, and Schiller. The worthy parents of these gifted sons used their utmost endeavors to force all three into the medical profession; and—grand as that profession is—could a greater calamity have befallen these men or the country to which they belonged than their following the advice of their parents instead of the dictates of their nature.

The sight of genius wasting its strength in menial toil or to earn its daily bread is a disgrace to a nation. To see the winds grinding corn, when they should be marshalling the clouds and fanning the fainting flowers and sending the rain to the place where it is most needed, is pitiable indeed. A nation needs poets and literary men quite as much as she needs farmers and merchants, sailors and soldiers, as without these there cannot be created a national feeling. It is ideas and principles which hold men together in great crises. Lycurgus imagined that he could hold a nation together by means of drills, games, and public tables, and by ignoring the home and family ties, but he soon found out his mistake and was obliged to introduce the works of Homer to keep up the courage, heroism, and patriotism of the Spartans. Man is eminently a social animal, but he is also a thinking, reasoning, spiritual man, and he requires food for his brain and the stimulus that comes from reading of great deeds to achieve great things himself.

Hence the poet and sculptor has utility as well as beauty, since without them there is nothing to preserve the past in a form which can defy the ravages of time. Besides, heroic actions like ideas are not fully appreciated until embodied in forcible language. As Mill says in his *Logic*, "hardly any original thoughts on mental or social subjects ever make their way among mankind, or assume their proper importance in the minds even of their inventors, until aptly selected words or phrases have, as it were, nailed them down and held them fast." How soon the valor of the

heroes of Thermopylæ might have been forgotten had not Greece had a Simonides to write their epitaph:

"Go tell the Spartans, thou who passest by,
That here, obedient to her laws, we lie."

Or sing their praise in verse:

"In dark Thermopylæ they lie,
O death of glory thus to die!
Their tomb an altar is, their name
A mighty heritage of fame:
Their dirge is triumph; cankering rust,
And time that turneth all to dust,
That tomb shall never waste nor hide,—
The tomb of warriors true and tried,
The full-voiced praise of Greece around
Lies buried in that sacred mound:
Where Sparta's king, Leonidas,
In death, eternal glory has."

To endeavor to utilize our natural gifts should be our aim, for no one struggles perpetually and victoriously against his nature. One of the first principles of success in life is to regulate our career so as to turn our physical and mental endowments to good account. Do not bury your one talent in a napkin. The man of one talent or one idea is a force quite as difficult to overcome as the man of ten talents; the man with one idea and a fixed purpose is not swayed by contending ideas and influences which are the cause of the action of so many men resulting in nothing definite. Lord Derby once said of his gifted son, the translator of Homer, that he had so many ideas on every subject, that like Mahomet's coffin he was always suspended in mid-air. Poor Puss mournfully told Reynard that she had but one scratch with which to defend herself against her enemies; he boasted of possessing twelve, but when the hounds came in sight, Puss, with her one talent, her claws, ran up the tree, while Reynard with his twelve means of defence was torn to pieces.

It is not given to every man to know wherein his talent lies. Walter Besant, in his eulogy of Richard Jefferies, says of his hero: "He suffered from the inability of not knowing the bent of his mind, and wasted his life in writing weak novels when he might have made himself an authority on agricultural matters." Matthew Arnold has a like complaint to make of Amiel. The passages of his journal devoted to criticism show Amiel to have been a profound and capable critic, yet he wasted his talents in giving birth to dreams. "Trust not yourself, but your defects to know, make use of every friend and every foe." Macchiavelli said, there are three kinds of minds, those who understand of themselves, those who understand when others teach them, and those who never understand. Inventors and discoverers are minds who understand of themselves, Watt, Stephenson, Fulton, Newton, Columbus, and Copernicus belong to this class.

Education and knowledge take all their value from the power of the mind of the individual receiving

them. "Bookful blockheads, ignorantly read, with loads of learned lumber in their head," are found in all professions, blocking the car of progress. Well may the enlightened business men whose endowments of seats of learning have made the learned blockheads possible, exclaim with the ancient Jews: "Behold we cast our money into the fire and there cometh forth this calf."

The older one grows the more one values natural gifts, "for, by no possibility can they, as Goethe says, be procured and stuck on." People, like the soil, are of every grade; some, if cultivated, replace the money spent on them; others, if cultivated up to a certain point, prove profitable. If a man, like a country, engages in a branch of industry for which he has great natural advantages over competitors, he reaps an industrial return proportionately great. If he insists on doing what he is unfitted by nature to do, what is this but biting off his nose to spite his face. If each would do only that for which he is qualified by nature, there would be less unhappiness and the world would be better served.

"The most useful thing to man, is man," said Spinoza. Nothing showed the greatness of Sir Humphry Davy's mind so much, as his statement, that he regarded Michael Faraday as the greatest of his discoveries. "Be thou the first true merit to befriend, his praise is lost who stays till all commend."

The endeavor of parents and a nation should be to develop the least endowed of their children, for Nature has armed each man, as Emerson says, "with some faculty which enables him to do easily some feat impossible to any other, and this makes him necessary to society, and society will be bankrupt until each does that which he was created to do." Anacreon beautifully expresses in verse the same idea:

"To all that breathe the air of heaven
Some boon of strength has nature given,
In forming the majestic bull
She fenced with wreathe'd horns his skull,
A hauf of strength she lent the steed,
And winged the timorous hare with speed;
She gave the lion fangs of terror,
And o'er the ocean's crystal mirror
Taught the unnumbered scaly throng
To trace the liquid path along;
While for the umbrage of the grove
She plumed the warbling world of love,
To man she gave, in that proud hour,
The boon of intellectual power."

THE REACTION AGAINST MATERIALISM.

How does it happen that in our days, among large classes, not only in America but all over the world, there has set in a tendency to Spiritualism which manifests itself in many ways? A crude belief in spirits and spiritual manifestations exists; mediums infest the country, who communicate with the departed and im-

pose upon the credulous in many ways. New creeds are preached, such as Christian Science and so-called Metaphysics. Faith-cure is practiced, and among the societies for psychical research scattered throughout the world there are some that vie with each other in the publication of incredible statements about telepathy and wonderful tales of second sight.

This movement may be called a reaction against materialism. Mankind, it seems, is growing tired of the crude materialistic philosophy that came to them in the name of science, and a reaction is taking place which, according to the education of the different people concerned, assumes the shape of a more or less crude superstition. It is noticeable that the reaction is strongest among the unchurched, among liberals and so-called freethinkers; it is less marked among the adherents of the old creeds, the members of churches and religious congregations.

Science is *not*, as is so often claimed, materialistic; yet to the unscientific, to the laymen, who are not thoroughly versed in its elementary truths, science naturally enough appears materialistic. The science that is transplanted from the laboratory or the study into the streets, rapidly ceases to be science. There are very few savants who take the trouble to be popular. Most of them confine their publications to men of their own class, and it is an exception that now and then a scientist addresses the whole of civilized mankind, and speaks or writes in a style that can be understood by business people and workmen. The duty of popularizing, to a great extent, thus devolves upon men who have not grasped the whole truth of scientific discoveries, and who look at them from the outside only. They inform themselves about the rigid formulas, the exact statements of laws by which we can predict the slightest details of the movements of molecules and atoms. Perhaps they are also able to explain these formulas, and point out the mechanisms of action discovered through scientific investigation. Yet the spirit of science escapes them, they overlook the spiritual that pervades the mechanism. This it is that evoked the just sarcasm of Goethe, who says in Faust:

"He who would study organic existence
First drives out the soul with rigid persistence.
Then the parts in his hands he may hold and class,
But the spiritual link is lost, alas!
Enchères nature this chemistry names,
Nor knows how herself she banters and blames."

By materialism I understand that view of the world which explains everything from matter, and takes for granted that material existence is the only reality. Materialism overlooks the importance of the spiritual and does not consider it as a reality worth while troubling about. Spirit is, so materialists claim, an occasional function of matter only, the origin of which is

not yet explained, yet it is certain that its existence is very fleeting.

Après nous le déluge! was the motto of the French materialists of the eighteenth century. "We need not trouble," they thought, "about our fate after death, for death is a finality; death ends all. Therefore, let us enjoy the present, let us eat and drink, for to-morrow we shall be no more. And if a deluge is to sweep over our graves, let the deluge come." We need not here repeat historical facts; they are too well known. This view of things induced the classes in power to give themselves up exclusively to the enjoyment of life, and to oppress their fellow-citizens in order to attain the means for their wasteful pleasures. The deluge came indeed as a natural consequence and swept away with merciless justice the guilty, the frivolous, and the foolish, and together with the guilty the innocent also.

We shall not dwell here on the mistakes that practical materialism makes when as an ethical theory its doctrines are applied to real life. We shall limit ourselves to a consideration of its theoretical mistakes only. There are plenty honest materialists who do not see at all the consequences to which their doctrines naturally lead, and it would be unfair to make them personally answerable for results, and to charge them with having wilfully poisoned the public mind. There are very few materialistic philosophers who are to be stigmatized as frivolous or immoral; on the contrary, most of them are indubitably honest men, who have devoted their lives to the search for truth and who speak out boldly that which they regard as truth. They should not be blamed for that; in that they should be encouraged, for it is only by boldly speaking out that which we believe to be the truth, that truth can be discovered. Nor should other thinkers who are of a contrary opinion doubt their honesty or ever make insinuations respecting their personal character, simply on the ground that their doctrines might in their application lead in the end to immoral practices and thus undermine public welfare. The only remedy against errors is to point out errors without personal malice or imputation, and it is this that we shall try to do in the case of materialism.

Matter is an abstract, made in the same way as all other abstracts. Abstraction is a mental process. We abstract (we take away) in our thoughts from a number of things certain properties which perhaps in reality are inseparably connected with other properties; but in our thoughts we exclude all the other properties. We need not explain here the advantage of this method, which is undeniable, for abstract thought is the condition of all exact discriminations, and science would be impossible without it. Matter is generally defined as "anything which can affect one or more of our five senses."

It is understood that all other properties, such as spirit, are excluded from the term matter. There are two properties which in reality are always inseparably connected with material things, yet in the term "matter" they are not included; viz., (1) motion, and (2) form. If I speak of the matter of an object, I limit my attention to the bodily particles of which it consists and take no notice of their forms or of the relations that obtain among the particles, or of their motions. It is their quantity in mass, without reference to any one of their many other qualities. I cannot in reality separate matter from all form or from all motion. I can perhaps impart to a piece of matter more or less motion, I can destroy its present form. But it is impossible to take away every motion and every form. There is no such a thing in reality that would be matter *alone*: abstract matter, matter void of all motion and without any shape or form. A stone may be in a state of relative rest; for instance, it lies quietly on the ground. Yet it moves with the earth through the space of the solar system with an average speed of nineteen miles per second. There is relative rest, yet there is no absolute rest, and there is matter without regular form, yet there is no matter without any form whatever.

Materialism contains one great truth; and it is this truth that gave materialism its strength and its prominence. Materialism rose in opposition to supernaturalism. Certainly, materialism went too far when it tried to explain everything from matter, when it identified matter with reality; yet it stands on solid ground when it maintains that every reality is material. There are no pure forms: the forms of reality are forms of matter. There are no mere motions: real motions are changes of place among material particles. Yet matter is only one aspect of reality; matter does not cover all and the whole of reality. Besides the material there is the formal, and there is the life displayed in the spontaneous motion of all things. Materialism is right as opposed to idealism, when idealism claims that abstract forms are entities by themselves. Plato proposed the theory that ideas, or abstract forms, are the only true realities, and that the things from which we have abstracted these forms are mere shams, mere transient appearances. Materialism is right also as opposed to spiritualism, when spiritualism claims that spirits exist or can exist apart from material bodies, that the spiritual has an empire of its own in abstract independence, and that ghosts can walk about in bodiless nudity.

The reaction which, as we can everywhere observe, is taking place against the errors of materialism is based upon a great truth, and it is this truth that will survive the crudities of the movement. There can be no doubt about the fact that this world is spiritual

in its inmost nature. The spiritual animates every particle of matter and appears in its most beautiful and grandest development in the human soul. The spiritual is no incidental feature of reality, but an intrinsic quality of its existence, which will surely blaze out in the course of the evolution of worlds. It is, as it were, the revelation of the secret concealed in the potentialities of the elementary conditions of the universe.

We do not maintain that a spirit resides in every atom, but we maintain that the elements of feeling are a property that is inseparably connected with matter. Feeling originates when a certain configuration of molecules produces a definite interaction among the particles of organized substance. The motions of every particle take place according to the laws of mechanics, and are accompanied not with feeling but with elements of feeling. The feeling that takes place in organized substance during its activity is not a product of its mechanical motion (i. e., motion is not changed into feeling), but it is a phenomenon that accompanies its mechanical motions. Mechanical motions and the elements of feeling are not interchangeable, but run parallel to each other; and special combinations of these elements form the phenomena we call feelings. Thus together with the evolution of the mechanism progresses the development of feeling which reaches in man the height of conscious thought.

The elements of the spiritual we consider accordingly, as a universal property of matter. Nature is not dead, it is alive; it bears in its bosom the germs of life and will develop them in the course of the natural process of evolution. Spirit is a special combination, a certain form, the mechanical parallelism of which is found in the activity of living substance; and the growth of the spiritual depends upon and accompanies the perfectionment of organism.

As an instance how greatly people of a spiritualistic turn of mind appreciate the importance of form, we quote a poem by Clementine A. Perkins, published in the November number of the *Esoteric*:

" There's poetry in life and its motion,
There's rhythm and rhyme in its tune;
There's principle to prove to our notion,
That all is rule upon rule.

There's harmony in sweet flow'rs chiming,
There's color, and form, and there's thought;
There's beautiful speech to the finding,
For all is rule upon rule.

There's symphony grand in the planets,
With minor and major chords both;
There's certainly life in the gravities,
For all is rule upon rule.

There are pages spelled out for our reading,
With crooked and straight lines and points;
There's purity gained by those hooding,
For all is rule upon rule.

There are glorious hues soft in blending,
There's music and life in the light.

There's Infinite Love o'er us bending;
For all is rule upon rule.

There's the wonderful work of creation,
There's spirit and matter in one;
There's godliness born of each nation,
For all is rule upon rule."

Materialism overlooks the importance of form. Materialists by identifying the material with the real, imagine that they have exhausted the reality of objects when they consider their material existence alone. Without the material, of which it consists, a thing would disappear; the material element in it, it is true, makes the thing real, in so far as it gives substantiality to it. Yet the form is no mere nothing, as materialists are too apt to say. The form is exactly that which makes the thing such as it is. Without its present form a watch might be anything; it might be a lump of metal, or any other thing, but it would be no watch. The form of things, therefore, is the most important part of reality. It is the form only, be it in motion or in matter, that excites the interest of the scientist; form arouses the imagination of the artist and the industry of the inventor.

Spiritualists, in a certain sense, ought to be called materialists, for they have one error in common with materialists. They cannot see that the formal and the relational are non-material realities. But while materialists consider forms as mere nothings, spiritualists are prone to look upon forms as if they were substances, and thus materialize spirit. They conceive spirit as a substance like matter, only much more subtle, and not perceptible by our senses. Thus they lack in the properly spiritual conception of form, and become blind to the irrefragibility of the mechanical law. They dream of a realm of life in which a different and a higher kind of mechanics, a hypermechanics, will supersede the usual mechanical laws that prevail in the realm of material existences.

Science traces the laws of form everywhere. The laws of form are our guides and the instruments of research. No scientific problem, whether it concerns matter or motion, is fully solved until it is shown to be a problem of form. Thus the motions of the celestial bodies are reduced to simple arithmetical formulas, being mere applications of purely formal laws, and in this astronomy has reached a certain stage of perfection. Similarly, the problem of the chemical elements would be solved, if chemistry could demonstrate that the different kinds of matter, as oxygen, carbon, iron, etc., are special forms of one and the same substance only, and that their different properties are natural consequences of their difference in configuration as well as density.

There is no absolutely dead matter. But every atom is freighted with the potentialities of life. The living spontaneity of the world is the condition

of the spiritual; but it is not as yet the spiritual in its development, and in its full importance. The spiritual grows in and with the forms of life; it would be nothing without the forms of organization. The spiritual, therefore, appears in its glory in organized life, and has reached upon earth the highest stage of its evolution in the intelligence of the spirit of man.

P. C.

THE ETHICS OF HYPNOTISM.

BY GEORGE M. GOULD, M. D.

It has become quite fashionable to amuse an evening party with the remarkable plaything that goes under the name of Hypnotism. The malodorous and lethal qualities of the poison that kid-gloved dilettanteism thus daintily toys with may excuse a few plain words of explanation and warning. I have always marvelled that the spectacle seemed to please. To me, pain and disgust were not only logical but unavoidable emotions. I felt as if I had assisted at a vivisection-experiment whereat, if scientific curiosity had been stilled, shame and regret had been stirred. It is not to be denied that to the trained investigator of psychopathy there may be an absorbing interest in the phenomenon, but the psychologist seeks truth, not relaxation, and the ordinary spectator would hardly claim any knowledge of or interest in the study of morbid mental function.

We are told that there are three forms or types of the hypnotic state: the lethargic, the cataleptic, and the somnambule. It is also admitted that they are all most intimately related, being in fact but different phases of the same essential phrenopathy, and at the gesture of the operator are quickly metamorphosed, the one into the other. The somnambule or sleep-walking state has been considered harmless and to be played with *ad libitum*, and the above relationship with its more vicious allies, lethargy and catalepsy, is alluded to as illustrative of the community existing between all. In those more profound derangements, the whole organism is in a state of the deepest stupor, the muscles may become plastic and wax-like, the mind lying in a deathlike trance, the external world as if non-existent,—the entire condition one of frightful abnormalism. None but the hardest operators dare induce these conditions, and in the more amateurish art of playing stage-tricks with captive minds, called somnambulism, the manipulator must remember that he runs hard by the sheer precipice of catalepsy. But in the popular conception hypnotism means somnambulism and our consideration of the subject must be limited to this aspect.

Wonder at the uncanny interest excited by the spectacle is partially explained by the fact, that what takes place is supposedly of a mysterious and semi-supernaturalistic nature. There is always a strange fascination about psychological evil and morbidity, and the awesome shudder of the audience at the creepy spectacle shows the witchery. The supposed mystery, however, is a myth, and fascination gives prompt way to disgust when it is seen that what really takes place is only the most brutalizing of crudities—a relapse to the mental and social conditions of animalism and barbarism.

Stripped of verbiage the essential nature of the somnambule state consists in the focalization of consciousness upon vacuity, and supplying the usual content of the same with exotic idea and *ad extra* domination. A glance at the analogous phenomena of dreams and sleep may serve to make the matter more clear, have elsewhere tried to show that our common dreams prove that the highest unifying centre of the mind we call consciousness may have direct relations with the lowest or primary organs of the senses without the ordinary intermediation of the subordinate

centres. We know it is not the eye that sees or the ear that hears, but that the crude messages from the eye and ear must be made into sight and sound by the so-called visual and auditory centres. In the real world of waking-life it is from these higher visual and auditory centres that the highest, all-correlating centre we call consciousness, or "I," gains all its data; it is they that make reality and distinguish dream from waking-life. Sleep is simply the sleep of these intermediate centres, their period of rest. They require rest because they compose the bulk, if one may so speak, of mind-stuff, and do the great part of mental work. Their creation and perfection has been the work of humanization and civilization. The consciousness-centre above, and the peripheral sense-organs of the body below, are small parts of the nervous system. But during sleep, and especially in the animal and semi-barbarous life of earlier times, the organism was unarmed and exposed to innumerable enemies from without and within. These had to be guarded against. Cold, heat, malposition of the body, danger from a thousand external sources, had to be watched for, and as a response to this need there was developed what I have called the sentinel-function of consciousness, or the dream-person, to be on the alert and protect the sleeping organism. This seems to me the only reason for the origin of dream-life,—and we know that no such noticeable function could have arisen without its *raison d'être* in utility. Nature is no spendthrift in such matters. Life was too serious a work, and the author of life had too much at stake, to create the mechanism and phantasmagoria of dream-land for the sleeper's pleasure and had the function not subserved a stringent need. The means whereby this sentinel-function is effected consists in linking the consciousness or supreme correlation-centre by commissural fibres directly with the primary sense-organs, to the exclusion of the large intermediate centres that in real life re-work into sensations the crude stimuli of the peripheral end-organs. When in sleep these last, the eye, ear, skin, etc., acting as advance pickets, are undisturbed, the vacuous consciousness of dream-life has only the flitting fancies of illogic and ghostly memories where-with to busy itself. But when the out-posts are in danger their messages direct to consciousness are woven into the dream, finally dominate it, spur the centre to action, and when it has called vehemently enough upon the intermediate sub-centres, these spring into function—and we are awake!

Hypnotism is a diseased sleep with a mechanism, not dissimilar in essentials from that of normal sleep, except in the addition of morbid exaggeration and factitious creation. Instead of normal healthful rest an artificial constraint and an external will ruthlessly and abnormally shut out the intermediating centres, and speaking direct through the primary automatic sense-organs, command the mechanical obedience of the enslaved consciousness. It is the nature of consciousness to respond to the most powerful stimulus, and consent, or passive obedience, of the subject, is a pre-requisite of successful hypnotic experiment. The tone of command and mastery are needed to keep the tyrannized attention true to its unnatural work. Judgment, comparison, reality, logic, etc., etc., are the functions of the great composite groups of the subordinate centres. Hence, when these are functionless, we have the slavish obedience, the acceptance of the most astounding nonsense, the likeness of the hypnotic dream to that of the ordinary dream, the inability to distinguish between subjective and objective fact.

In this forceful wrenching of the attention of consciousness from its normal sources of supply, and in the persistent automatic obedience to an external will or fixed idea, we gain another standpoint of observation in which a nearer approach to the truth consists in viewing the hypnotic sleep as a disease of the attention. In our customary avocations when we are engrossed by some absorbing work or object of interest, it requires an unusually strong stimulus to make itself noticed by the "abstracted" consciousness. When excited or absorbed we do not hear ordinary sounds or see

customary things, may not even know of a considerable injury to the skin,—as a cut, an abrasion, etc. In other words, the messages are sent to consciousness but are shut out from a hearing and ignored. This is a symptom of the many varied forms of insanity, and is preëminently a symptom of hypnotism.

The normal and healthful activity of consciousness depends upon its impartiality in listening and responding to all orders of stimuli, and not in disregarding some altogether. Exclusive devotion to one becomes monomania, fixed idea, insanity. Hypnotism goes a step further in idolization and shuts out all except those that come by secret routes from the external tyrant. A sound consciousness depends upon the data furnished by its subordinate centres, which it re-works into general concepts and resolves into volitions. The safety of the organism depends upon such normal action. In disconnecting or disallowing the subordinate centres the hypnotizer deprives the mind of any data but such as he chooses to supply direct, the organism is at the mercy of his whim, whilst his suggestions and implanted ideas fill the vacant and enslaved consciousness with abnormal and illogical data, and direct its energies with mechanical rigidity.

Evolutionally, hypnotism is an atavistic return to primitive and savage mental processes. All barbarous and semi-civilized peoples exemplify an hypnotic state of mind. Every African tribesman offers an example, mentally, of the same mechanical dependence of the subject or slave upon the tyrant chief, male lord, or master. Civilization, psychologically, consists in creating, developing, and educating the great body of the cerebral centres placed between the peripheral end-organs and consciousness, and allowing the latter to react to these natural sources and data, instead of to the outside tyrant. The more a mind approaches the savage type the more it seeks an outside master, the easier it falls under the domination of an external will. And the lower in the evolutionary scale, the greater the automatism and mechanicalism of mind that offers itself as the readiest tool of the hypnotizer. Hysterical, weak, disordered, or undeveloped brains are the most pliant. Preëxistent intellectual disintegration and atavism is necessary as an initial preparation before plunging yet deeper into the artificial hypnotic barbarism. Parenthetically it may not be superfluous to hint that hypnotism offers a clue if not a rational explanation of the manifold and monotonous mob of chronicled delusions, tyrannies, manias, and inexplicable aberrations that largely make up the subject-matter of history. Is it far from the mark to say that Napoleon was a kind of national hypnotizer?

Thus and again we are brought face to face with the patent fact that the hypnotic state, both in preparation and execution, is a diseased state. It is no mere innocuous bit of psychological legerdemain, but downright morbidity. It has been asserted that there is a disease of the human prostate consisting in the deposit of calcareous formations,—a far-away cell-memory of the egg-shell forming age. The latest theory of the etiology of Bright's Disease is that it is a reversionary tendency toward that preanthropic type of the hepatic function in which the liver performed the additional office of excreting uric acid. Whether proved or not, such analogies offer us illustrations of the constant struggle of the upward-building forces against the vicious inclination of the organism to revert to primitive modes of function. But speaking medically, such reversions are always pathological, demanding cure, not culture. Charcot's experiments are confessedly upon neurotic and diseased subjects, and the implication is everywhere manifest that the state itself is a yet greater morbid abnormalism always trenching close upon danger. Even though a Frenchman, he has had the sane conservatism to operate only upon those already more than half-hypnotized by preëxistent mental disease, wisely shrinking from generating the neurosis in sound or balanced minds.

And if all this be true, what a lesson it constitutes for reck-

less operators who have with foolhardiness produced mental disease, and played juggler's tricks with the most sacred mysteries of mind and the hardest-won conquests of civilization's battle! There is a responsibility and a possible accountability that I shudder to contemplate. Disguise it as one may, the hour's amusement has been at the expense of nothing less than the Disintegration of a Soul, and the Dissolution of Personality. The satisfied smile of the "Master" or of his "subject," that nobody is the worse for the experiment, is gruesome. It must not be forgotten that we are but at the beginning. A suggestion of the icteric nature of the malady is gained from Charcot's admission that "sleep comes the quicker the oftener the subject has been put to sleep." I see no escape from the conclusion that, medically, hypnotism is the production, not the cure of disease, and that if it is wrong, dangerous, or criticizable, to put the sound mind into this morbid state, it is yet more emphatically wrong to plunge the already unsound into a still deeper slough of mental and moral wreckage.

There are two possible answers to this. First, that hypnotism may be made a therapeutic measure, and to this a sufficient reply is that no one seriously believes it, or has proved it. In the second place it may be said that the production and study of these phenomena have been carried on with the purpose of learning if the power or condition may not become methods of cure and help in medicine. No genuine lover of medicine would willingly let slip a possible therapeutic measure of promising value, but the cure of slight disease by the preparatory production of severe disease is a new plan of treatment, not to be understood, except perhaps by the mystical knights of *similia similibus*, or some like-minded exponent of metaphysical medicine. Moreover, it can scarcely slip attention that the laboratory argument is the first frank admission of the righteousness of human vivisection. Not a few intimations point plainly to such a coming demand, and, may it not be said, that the frankest truth, the *vérité*, about this whole hypnotic pothole is that it is human vivisection, pure and simple;—and of a peculiarly repellant type—mental vivisection—like unto the consecutive slicing, layer by layer, of the brain-tissue of some luckless animal—of all that morality and civilization and human endeavor have to show for a million years of effort.

There can be no question that the physician not only goes beyond, but contradicts his office, in the willful production of a pathological condition. Whether, for purposes of investigation the student of morbid psychology has such a right, must be left to public opinion and legislatures for answering. After all possible allowances and reservations have been made, it must be admitted that this frightful power should be lodged only in trained hands, and not for the satisfaction of dilettanteism, display, or ennui, but solely for the benefit of humanity and suffering minds.

Because patient, sick is every "subject." This truth must not be blinked. That a mind should willingly permit its own reduction to a pitiful automatism and atavistic relapse, is itself disease, requiring, not encouragement, but moral tonics and psychological therapy. Is thy servant a dog that he should do this thing? I have no desire to wound any one who has proved "a good subject," but plain speech is best; and, too, one must speak for the mass and average. There may perhaps be exceptional cases where increased abnormalism of mind is not detected, and where, apparently, no harm is done. It cannot be so in the long and with the many. What contradicts the normal course of mental development, and the healthful ideal of mental unity and integrity, what is manifestly a return to the virtues of the dog and the slave, what is retrogression, not progression, devolution, not evolution,—all this is incontrovertibly wrong, personally or socially. To consent to it, whether publicly or privately, is psychological sin and vice.

And this public or social aspect of the question cannot be

stirred. There is no longer any doubt as to the fact—the ability of a strong will thus to enslave another's weaker mind and reduce it to a canine automatism. It has, indeed, been repeatedly proved that this astounding power may be exercised without, and even against, the consent of the subject. Behold the appalling possibility! It is contended by none that the possession of this power, in the remotest degree implies also concurrent scientific love or moral purpose. The ability to hypnotize does not argue desire to use the power unselfishly. *A priori*, it would argue the reverse. The essence of all sin is the selfish use of another's personality. It did not need slavery to prove that domination of another is not motivated by love or respect for that other. There is little doubt that many a secret crime and wrong has been prepared and executed by means of this Mephistophelean weapon. Some time since, the French papers were filled with the nauseating details of the crimes of a tramp hypnotizer: chief among them was the abduction and ruin of a beautiful girl who by means of this infamous charm was made to follow the villain about the country like a dog. Whenever the "post-hypnotic suggestion" began to fade out and the girl showed evidences of returning sanity, she was at once thrown into the somnambulant sleep and the suggestion or command again burned into her brain, that she was to remain his pliant tool. When brought up for trial the impudent scoundrel boasted of his power, and offered to hypnotize the judge in open court. His Honor, sincerely frightened, promptly turned his back, and refused to become a "subject." There is hardly a day that there does not come to light some inexplicable infatuation, some illogical and motiveless crime, some unaccountable slavery to a fixed idea, or to another's will, in otherwise apparently healthy minds, and all leading to bewildering wrong, misery, or ruin. Is it not possible that hypnotism may lie at the root of some of it? It is reported that a few months ago a thief traveled all over England hypnotizing every cashier with whom he had any dealings. He could make any man believe a shilling was a sovereign and promptly give him change for the hypnotic image. In a Western city last year a jail-bird walked into a bank and compelled the president, surrounded by his clerks, tellers, and book-keepers, to hand him \$20,000. The "post-hypnotic suggestion" lasted until the scamp had escaped. These are adduced as illustrations of the fact that this power exists, and that its possessor is not necessarily a fine type of the genus homo. It is commonly said that consent and even much of what might be called sub-conscious collusion is necessary on the part of the subject. But even granting this as a general statement, it can hardly be affirmed that it is always so. Besides this, all agree that the willing subject can be made to do motiveless and unconscious things by post-hypnotic suggestion, and this is assuredly a dangerous power. For these and like reasons the public exhibition of these experiments has by several European legislatures been branded as criminal, and English medical men are now advocating the same measure. Have we not already enough and more, of dangerous pruriency and vicious crankery without adding a semi-scientific branch? Is it not nauseating to find in the full blaze of our latest civilization a spawning of every variety of debauching mental abnormalism that furious fancy can imagine or shamelessness exemplify? Every honest physician is daily brought into competition with a thousand forms of quackery, but whether secret and disguised, or proud and successful, always foul, and always feeding upon the crassest ignorance and neurotic abnormalism. Everywhere the *marabouts* of spiritism, clairvoyance, Christian science, crankery, occultism, aristocratic voodooism, and all the rest, peering at you out of the eyes of befogged mediocrity, imbecilic sentimentalism, or specious imbecility. It is to be hoped that American clear-headedness and high-heartedness will return with

freezing politeness this hypaotic perversion, this latest French theatrical disease, to the native land of life-elixirs, hydrophobia, and extravagant paradox.

Summarizing these objections to the scenic or amusement type of hypnotism, the following criticisms seem to me to obtain:—

1. Physiologically, the hypnotic state of the somnambulant type is the pathological analogue of normal sleep. It is a diseased sleep, effected by an inhibition or disregard of the mind's subordinate centres, a morbid perversion of attention, and an enslavement of the highest correlating centre of consciousness by an unnatural and external domination, either of will or of idea, suggested or fixed.

2. Psychologically it is a disease of the attention, a ruthless interruption of the normal activities of the mind, and a forced divorce of the consciousness from its natural sources of supply. The distinctive quality of civilized mentality,—true psychogenesis,—the systematization and perfection of the crude data of the senses, is reversed and extinguished, and no psychic contributions of the centres concerned in this work are admitted to consciousness, except they come with the secret passport of the external tyrant.

3. Evolutionally, it is an atavistic reversion to a primitive type; the dissolution and extinction of the intellectual results of civilization's long battle for personal independence and mental autonomy. There is no mystery or supernaturalism in it. It is not a transcending of the natural but a descending to the bestial,—a return to the psychic, or preferably unpsychic, relations and activities of the slave and the savage.

4. Medically, as in all reversions or abnormal survivals, hypnotism is simply disease. Its two principal forms are the very culmination of dangerously morbid nervous derangement, its lighter phase presents all the marks of neurotic and psychic disturbance. Since the duty of the physician is to cure, not cause, disease, it follows that the creation of this neurosis for purposes of amusement, or even for scientific experiment, runs squarely counter to therapeutic ideals. Whatever experimentation goes beyond the aim of therapeutics is, in a word, human vivisection, about which question, abstractly considered, humanity may have a word to say. That allied and pre-existing diseases may be cured by hypnotic methods, is a wholly unproved allegation, and an illogical subterfuge.

5. Individually, and so far as the operator is concerned, hypnotization is a wanton playing upon the already diseased personality of another by one who has no right to the power. No man in this age and country has any valid authority for reducing another's mind to a condition of canine automatism and subservency. Looked at from the subject's side, it is of the very essence of vice to willingly undergo mental degradation and animalization. It is the most pitiful of answers to say one feels no injury. Neither does one feel injury in any form of anesthetization, or in loss of sanity.

6. Socially, it must be candidly admitted that hypnotism is a weapon of all too dangerous powers and possibilities to be put indiscriminately into ignorant hands. Possession of hypnotic power does not logically imply possession of moral purpose, but would seemingly imply the reverse. It is certain that the power has often been made the instrument of heinous criminality, and it is extremely probable that this has been far more frequent than is supposed or can be known. The very secrecy and subtlety of its possible and suggested use makes one shudder with horror. Lastly, the allurements it exercises upon the weak, neurotic, and mentally diseased, encouraging such to infinite mimics and self-idiotizations, forms an added proof that, as in foreign countries, we must also prohibit all public exhibitions of its phenomena.

THE PSYCHIC LIFE OF MICRO-ORGANISMS.

BY C. STANLAND WAKE.

M. BINET, in his remarks on Mr. Romanes's recent article on this subject, says: "I do not know, and no one, in my judgment, can know, whether the Micro-Organisms are conscious or not of the highly complex physiological acts, pertaining to their life of relation, that they execute under certain conditions." If they are not conscious of those acts *in any sense*, and if the rule laid down by Mr. Romanes is correct, then we must say that their action is simply reflex. He affirms that "it is the element of consciousness, and the element of consciousness alone, which can be taken to differentiate the phenomena of instinct from those of purely non-mental adjustment." The criterion of consciousness is "the power of learning by individual experience," which "is not rigidly exclusive either, on the one hand, of a possible mental character, in apparently non-mental adjustments, or, conversely, of a possibly non-mental character in apparently mental adjustments." In explanation of this statement, Mr. Romanes adds, "it is clear that long before mind has advanced sufficiently far in the scale of organization to become amenable to the test in question, it has probably begun to dawn as nascent subjectivity. In other words, because a lowly organized animal does *not* learn by its own individual experience, we may not therefore conclude that in performing its natural or ancestral adaptations to appropriate stimuli, consciousness, or the mind element, is wholly absent; we can only say that this element, if present, reveals no evidence of the fact. But, on the other hand, if a lowly organized animal *does* learn by its own individual experience, we are in possession of the best available evidence of conscious memory leading to intentional adaptation. Therefore, our criterion applies to the upper limit of non-mental action, not to the lower limit of mental." According to this reasoning, in the absence of the power of learning by experience, there can be no consciousness, and yet long before consciousness becomes amenable to this test, it may have begun as "nascent subjectivity," although it reveals no evidence of its presence.

But is it true that the "subjectivity" which thus exists before becoming revealed as consciousness, does not give evidence of its presence? Some light may perhaps be thrown on this point by a consideration of the nature of instinct. Mr. Romanes speaks of an action being instinctive when there is consciousness of its performance. What does this refer to? In every such action the agent stands in a double relation; that is, to the *end* desired and to the *means* used to attain it. The latter answers to the act performed, and it is what Mr. Romanes intends, judging from his definition of instinct, as "the power to react in the same manner under the same conditions for all the animals of the same species." It is evident, however, that the above explanation of an instinctive action has reference only to the means employed, and properly or improperly leaves entirely out of view the end to be attained. To illustrate this point by example. Apart from the movements of escape from danger, it may be broadly asserted that all the actions of a vast proportion of the lower animals are directed towards one of two ends, the preservation of the life of the individual or its continuance in other individuals by propagation. The former class of actions are usually referred to the instinct of self-preservation, which leads to (a) the performance of particular actions for, (b) the purpose of obtaining food for, the support of life. Now, according to Mr. Romanes's definition, no such action is instinctive unless it is accompanied by consciousness of (a); that is, of the means used to attain the desired result.

This conclusion is weakened, however, by further consideration of the definition of instinct given above. If instinct is the power to react in the same manner, *under the same conditions*, for all the animals of the same species, the power of learning by in-

dividual experience, which constitutes the criterion of consciousness, would seem to be excluded. If so, M. Binet is justified in asserting that a contradiction is involved in admitting consciousness as an index of instinct. As a fact, the similarity of conditions renders the *modus operandi* unchangeable, and it is only when these conditions vary that there is the possibility of learning by individual experience, which is required by consciousness. If this is admitted where there is a similarity of conditions, it must have relation to the object of the action and not to the performance itself.

Such being the case, the question arises whether all actions which are performed with a purpose external to the agent, are not instinctive, notwithstanding the absence of consciousness in relation to the action employed. Surely, there may be a simple recognition of "end" without intentional adaptation of "means." In this case there would be no consciousness in Mr. Romanes's sense of this term. The presence of his criterion of consciousness would seem to be evidence, however, that an action is not purely instinctive. Mr. Romanes in his article in the *Encyclopedia Britannica*, defines instinct as "the generic term comprising all those faculties of mind which lead to the conscious performance of actions, that are adaptive in character, but pursued without necessary knowledge of the relation between the means employed and the ends attained." When there is a slight blending of reason with instinct, as is often the case, the former "only acts upon a definite and often laboriously acquired knowledge of the relation between means and ends." It is the knowledge of this relation which renders possible the learning by experience, the power of doing which is said to be the criterion of consciousness. The exercise of this power is necessarily attended with deliberation, and it has to do, therefore, with reason rather than with instinct. But instinctive action is itself often founded in reason, as appears from Mr. Darwin's explanation of the origin of instincts. The first mode of origin is by what is called the "lapsing of intelligence;" that is, "by the effects of habit in successive generations, mental activities which were originally intelligent become, as it were, stereotyped into permanent instinct." Here the knowledge of the relation between means and ends, which constitutes the intelligence, has ceased to be recognized, but it nevertheless continues to exist in the consciousness. All such actions, therefore, are not purely instinctive, although they have become so habitual as to appear to be governed solely by instinct.

It is consistent with Mr. Romanes's definition of instinct that, although there is no consciousness of the relation between the means employed and the end attained, there may be a recognition of both the means and the end, and not merely of the former as supposed above. The conscious performance of particular actions adapted to certain ends, would seem to require a consciousness of the latter. If both are absent, there would probably be no mental action, but may there not be a phase of instinct in which the recognition of the means is excluded without that of the end being affected? Certain instincts are said to be due to "natural selection, a survival of the fittest, continuously preserving actions which, although never intelligent, yet happen to have been of benefit to the animals which at first chanced to perform them." Mr. Romanes cites in illustration of this principle the instinct of incubation, which he traces ultimately to the action of some cold-blooded animals in carrying about their eggs for the purpose of protecting them. It must be admitted that it is not probable any animal can ever have kept its eggs warm with the intelligent purpose of hatching out their contents; yet it may have at first sat on its nest with the conscious purpose of protecting them. It does not follow that the object for which an action is performed is unrecognized, because the action is the result of chance; even where the animal acting is too low in the scale to display intelligence, or

too young to learn by personal experience. The chance in any particular case has relation to a certain mode of action, that has been adopted in lieu of another mode of action which would have been pursued if the conditions had remained the same. The object in view is the same whatever the conditions.

But can instincts really be originated by natural selection? Mr. Darwin says, "it will be universally admitted that instincts are as important as corporeal structure for the welfare of each species under its present conditions of life." He adds, "under changed conditions of life it is at least possible that slight modifications of instincts might be profitable to a species, and if it can be shown that instinct is variable ever so little, then I can see no difficulty in natural selection preserving and continually accumulating variations of instinct to any extent that was justifiable. It is thus, I believe, that all the most complex and useful instincts were originated." Reference is here made to special instincts, such as Mr. Romanes describes as "the conscious performance of actions that are adaptive in character," and which he affirms are "eminently variable, and therefore admit of being modified as modifying circumstances may require." It seems to me, however, that a sufficient distinction is not made between the instinct and the act in which it expresses itself. Mr. Romanes refers to several cases of misdirected instinctive action, where hens have been led to rear chickens not their own, as modifications of instinct. In one case a hen brought up a family of young ferrets. She quickly learned to understand their cries, and when milk was brought for them she would call them if they were not near the nest. But in such cases as this, there is no real variation of instinct; it is merely a modification of action consequent on change of circumstances. The maternal instinct remains unchanged, although the acts performed in pursuance of it are altered.

This distinction would seem to throw light on the nature of instinct itself. It is a subjective tendency which seeks objective satisfaction, or realization in act, for the purpose of attaining a particular result. At any particular time, it represents the experience of past generations become hereditary. In each successive generation there may be some modification in its external expression, as the result of individual experience, but the instinct always remains as the same hereditary tendency. It may be said that in course of many generations the multiplied modifications will have resulted in the formation of a fresh instinct, but all animal instincts may be ultimately reduced to one or other of the three fundamental instincts of self-preservation, reproduction, and sympathy. The so-called originated instincts are merely modifications of the modes of giving them objective expression. It is to these modifications reference is really made, when it is said that natural selection continually preserves beneficial actions, and not to the instinct itself. This remains the same hereditary subjective tendency, which always operates in the same direction, although the change of conditions which necessitates a modification of the mode of action may cause a variation in the objective result.

The question still remains whether or not the purpose for which instinctive actions are performed is recognized where there is no consciousness of the actions themselves. That animals are conscious of the ultimate aim of their actions—for example, the satisfaction of the instinct of self-preservation, will hardly be asserted. To suppose that they are so conscious, would be to give them a subjective faculty which belongs to man alone. They may be cognizant, however, of the objective aim, that is of the obtaining of food, while unconscious of the relation between the end and the means of obtaining it. This may be true as well of the micro-organisms as of higher animals. The food has an objective reality which they may become cognizant of visually or tactily. No one can have watched those organisms under the microscope without being struck with the appearance of intention in their

movements. That the action in relation to the object is not consciously performed, is true in the ordinary sense attached to those words, but none the less it cannot properly be called reflex, if this requires an entire absence of consciousness, as a purely non-mental adjustment. Dr. Dessoir describes consciousness as *the defect of habit*, "the subjective expression of the work of acquisition which the mind is carrying on." If this explanation is correct, the absence of consciousness may be the perfection of habit. The subjective activity of the micro-organisms is, however, on a lower level. It cannot be called instinct in the sense of "lapsed intelligence, because intelligence was always wanting. But such instinct is secondary rather than primitive, and it is this primitive instinct, which the unconscious intelligence resulting from the continuous repetition intelligent action simulates under the name of habit, that the micro-organisms possess. It would seem to answer to the "direct and simple reflex-motion of conscious will," which is governed by an impulse "so overwhelmingly strong that it gives no time or opportunity for deliberation."⁸ The will has here an external expression, unlike simple reflex-motions, and the impulse which governs it is the tendency to satisfy one of the fundamental instincts of the being, the consciousness having relation to the object required for this purpose. While it is true, therefore, that micro-organisms are not "conscious," according to Mr. Romanes's criterion of mind, they must be declared to be instinctive, as possessing the feeling of which consciousness is the concentration, and thus to be conscious in a limited, although strictly accurate, sense.

ENTHEISM, OR IMMANENCE OF GOD,—AUTOSISM.

To the Editor of *The Open Court*:— "*Audi alteram partem.*"

In an editorial minute on a paper in *The Open Court* of February 13th, entitled "The Autoplastic Synthesis of the Universe," Hylo-Idealism, or Autoplasticism, is liberally judged as not "necessarily opposed" to the views of *The Open Court*. Now, I most willingly allow the extremely enlightened, comprehensive, and truly scientific spirit and methods of this serial, but yet must submit that so long as "its pronounced object is to harmonize Religion with Science," like the "London Victoria Institute," a wide, but not necessarily other than provisional, gulf yawns between the two Cosmologies. My object—an object as yet very imperfectly grasped by scientific experts and professors—is entirely to eliminate, at our present standpoint of Thought, all Non-Egoism and to include all human knowledge or ascience strictly within the limits of each sentient Ego. So that the venerated idea of God is—as *ultra vires*—in the domain of Teratology and Thaumaturgy—an anachronism doubtless not without its use in former ages as a workable hypothesis, but now quite superseded by Egoistic Monism, which makes of the Ego, centre radius and periphery of all sentient existence. In this respect Religion, like all other Animism, is quite on a level with the Ptolemaic system of Astronomy, Circular orbits of the spheres, or the corpuscular theory of Light. If all "things" are really only "things," i. e., visions or ideas, and we can never reach true *Ætiology* and *Absolutism*, it seems only a corollary, or rather parallelism to assert that these thoughts or visions are not traceable further than our own organ of thought. "*Quod super, vel extra, nos nihil ad nos*" and "*De non existentibus et non apparentibus codeus est ratio*," are surely indisputable axioms in the minds of all possessed of valid abstract thought. And that position is equivalent to the syntax I propound under the term of Hylo-Idealism and many *aliates*. Physical Science and Mysticism

⁸ Ed. *The Open Court*, No. 125, p. 261.

⁹ To exemplify the confusion still pervading the minds of the most distinguished savants—a confusion quite removed by the acceptance of Auto-centricism—it may be noted that Professor Stokes, P. R. Soc. is a convinced Christian theist.

must both combine to reach achromatic reality. Either alone is insufficient for the Herculean labor. The former ends where sentence begins, and the latter has no solid factual anchorage unless based on the concrete foundation of exact *Real-Studien*. The late Miss Constance Naden, a convinced convert to Solipsism, always assured me that her schoolmaster to that end was, during her scientific curriculum at Mason Science College, her earnest studies of James Hinton, Angelus Silesius, Vaughan's "Hours with the Mystics," Madame Guyon, not to mention the mystic obscurantism of the precursors of the Reformation, and indeed of Vedantism or Biblicism itself. No doubt I myself owe, in some measure, my attraction for this course of thought to the influence of the Moravian Brethren, at whose institution in Neuwed on the Rhine I spent two years—from my fourteenth to sixteenth years for educational and linguistic purposes, previous to my matriculation at the University of Heidelberg.

It is not my intention, on this occasion, to dwell at large on all the arguments in favor of Hylō-Idealism I have treated elsewhere, and in documents now in Dr. Carus's possession. I shall here only illustrate my contention by a most significant morphological fact drawn from the phenomenon of optical vision—a fact which seems unmistakably to point out to sceptical critics and gainsayers the assurance that all cognizance of the visible universe is esoteric, not exoteric, and that we really cognize not the outer object, but only its semblance, as "reflected" or "mirrored" in the optical organism itself. The short sentence I quote from the article "Eye," in Chambers's new edition of *The Encyclopedia or Dictionary of Universal Knowledge*, Vol. IV, Page 308, may be supplemented by perusal of other sentences of the text by all seriously interested in the solution of this immemorial problem, which, as long as abstract synthetic principles have been possible for human nature, has divided, and *de facto* muddled mankind in all ages and climes. The true method for this solution is now, in this last decade of the nineteenth century, for the first time in history, patent even to the least instructed minds, willing to throw off traditional and inherited prejudices. It is a trite truism of microscopical research that the essential element in vision is the retinal Jacob's membrane, a layer of rods and cones present by millions in the cup-shaped expansion of the optic nerve. Now these visual factors do not look outwards at the actual object or at the comical Light, but inwards, so that we only see that light or that object, as subjectified at the bottom of our own eye—a certainty, since the percipient factors are thus directed from, and not towards, the Light. If eye and brain thus make Light, surely we make all light senders visible, and object can only be perceived after complete immersion in the Subject-Self. "*Gefühl ist alles und Ding ist bei Schall und Rauch*," and indeed, strictly speaking, not even so much. Thus is the truth of Kant's negation of *Ding an sich* vindicated on other than involved metaphysical data. In the phenomenal sphere to which man is restricted, the noumenal has no part or lot, and thus, as Protagoras adumbrated, man is to himself the measure, standard, and it may be added, origin of all existing things—the real pseudo-Deus-homo (Herr or Vir) of Christianity and Hegelianism.

R. LEWINS, M. D.

[We call Dr. Lewins's attention to the fact that we understand by Religion not a special kind of "animism" but a conception of the world which will serve as a basis for ethics. By ego we do not understand the whole soul of man but the continuity of his states of consciousness. That the brain produces objects, in so far as they are our perceptions, i. e., in so far as they are parts of the *Welt als Vorstellung*, is undeniable. Yet this does not demonstrate that things are mere "*Schall und Rauch*." The brain is one factor and the objective reality outside of man is the other factor. Both united produce the world of our perceptions.—Eo.]

UNDISCERNED PERFECTION.

BY CONSTANCE C. W. NADEN.

Beyond the realms of dall and slumberous night
I long have wandered with unwearied feet;
The land where Poetry and Science meet
Streaks the far distance with a magic light;
Fair visions glide before my dazzled sight,
And shine, and change, and pass with motion fleet,
But never clear, and steadfast, and complete
In one transcendent brilliancy unite.
I know, the seeming discord is but mine;
The glory is too great for mortal eyes,
All powerless to discover the divine
And perfect harmony of earth and skies:
I know that each confused and tortuous line,
To fuller sight, in true perspective lies.

BOOK REVIEWS.

The Proceedings of the Society for Psychical Research, Part XI (London: Trübner & Co.), contain eight special articles as follows: "Address by the President, Professor Sidgwick on The Canons of Evidence in Psychical Research"; "Address by the President on The Census of Hallucinations"; "On Recognised Apparitions Occurring more than a year after Death," by F. W. H. Myers; "Further Experiments in Hypnotic Lucidity or Clairvoyance," by Professor Charles Richet; "Duplex Personality: an Essay on the Analogy between Hypnotic Phenomena and certain Experiences of the Normal Consciousness," by Thomas Barkworth; "Notes of Séances with D. D. Home," by William Crookes, F. R. S.; "Experiments in Thought-Transference," by Professor and Mrs. H. Sidgwick, and Mr. G. A. Smith; "International Congress of Experimental Psychology," by A. T. Myers, M. D.; "Ad Interim Report on the Census of Hallucinations"; Professor Pierre Janet's "Automatisme Psychologique," by Frédéric W. H. Myers; "Binet on the Consciousness of Hysterical Subjects," by F. W. H. Myers; "Das Doppel-Ich," by F. W. H. Myers; "Dr. Jules Janet on Hysteria and Double Personality," by F. W. H. Myers; "Professor Liégeois on Suggestion and Somnambulism in Relation to Jurisprudence," by Walter Leaf; "Two Books on Hypnotism" (Forel & Baerlacher), by Walter Leaf. "What any one has to do," says Professor Sidgwick, "who is convinced himself of the reality of any alleged marvel, is first to try, if he can, to diminish the improbability of the marvel by offering an explanation which harmonises it with other parts of our experience; and, secondly, to increase the improbability on the side of the testimony, by accumulating experiences and varying conditions and witnesses."

NOTES.

We differ from Dr. Gould with respect to the physiology of hypnotism. Hypnotism is not a "shutting out of the intermediate centres," but of the centralizing organ, consciousness. For full explanation of our views see the articles, "Lethargy, Catalepsy, and Somnambulism," "Dreams and Hallucinations," "What is Hypnotism?" and "Suggestion and Suggestibility." Nos. 119, 123, 118, 124.

We have received from Dr. Lewins, of London, three sonnets by the late Miss Constance C. W. Naden. They are of a very elevating and suggestive character, and, as Dr. Lewins says, "are quite in the line of the Neo-Philosophy advocated in *Fundamental Problems*." They will appear in separate numbers of *The Open Court*.

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THE FESTIVAL OF RESURRECTION.

SPRING comes again; and Eastertide reminds us of nature's immortality. There is no death! What seems so is transition. When in wintry weather the sun hides his face, northern blasts tear the leaves from our trees; but now the sun is returned and new life grows on every branch, the verdure reappears in the fields and man's heart believes with strengthened confidence in the realization of human ideals.

Easter day is the festival of Christ's resurrection, and the question has often been raised whether Easter day can with any consistency be celebrated by those who have ceased to believe in the sacred legend that Jesus Christ who died on the cross rose on the third day from the dead. We firmly maintain that it can and that it ought to be celebrated by all those who believe in the revival of spring, in the constant resurrection of human life, and in the immortality of our ideals.

Eastertime is not at all exclusively a Christian festival; Eastertime is a festival of natural religion. Its very name is pagan, for *Ostara* was the goddess, of the returning light; and light brings life. She was the *Aurora*, the *Eos*, of the Germans, the deity of the morning dawn in the East; and the egg was the holy symbol that represented her mysterious powers.

An egg is a wonderful thing; it has been the object of repeated investigations by our greatest naturalists; and our profoundest philosophers have pondered over the revelations of its marvelous secrets. The egg represents the potentialities of life. Mere warmth is needed to change the apparently homogeneous and insensible yolk into a most complicated animal endowed with a certain degree of intelligence. The egg represents, as we now know, the actual memories of chicken-life up to date. Its memories are not conscious memories, but the preservations of certain structures in living matter. They are motions of a certain form, which under favorable conditions and proper temperature will repeat all those motions, those vital activities, which its innumerable ancestors went through in uncounted ages past.

How wonderful are the secrets of form, and, in spite of the complex applications of which the laws of form admit, how simple is the basic idea that explains their mysteries! The artillerist, who aims his cannon, knows that a hair-breadth's difference in the

angle of elevation will give another course to the missile; the curve of its motion will be changed with the variation of its determining factors.

The egg contains the determining and formative factors of certain motions of living substance, not otherwise than three points represent the potentiality of a special kind of curve. The determining factors of the egg have, in their turn, been determined by the parental activities of its predecessors; and thus the egg becomes a symbol of resurrection.

Life is not extinct with the dissolution of individual existence, for even the individual features are preserved in coming generations. And, if this be true in the chicken, how much more is it true in man. Man's intellectual life has still other channels to be preserved in and transmitted to the souls of other men. These channels are human speech. The spoken word, and perhaps more so, the written or printed word, make it possible for the valuable thoughts of great thinkers and the enthusiastic aspirations of poets to live among us as if their authors had never died. Indeed, they have not died, they live still. Their souls are, and will remain, active presences in mankind to shape the destinies, and to guide the future development of our race.

Whether any given one of the heroes of mankind rose bodily from the dead or not, especially whether Christ rose bodily from the dead or not, is quite indifferent for the truth of the constant resurrection which, as science teaches, continuously takes place in nature and in the evolution of humanity. Let us not say, because there is no truth in the fables of religious mythology, that there is no resurrection whatever. Let us not say that we do not care for such a resurrection as can be observed around us in nature, and as can be experienced in human soul life; that unless we rise as bodiless spirits, as taught by supernaturalistic religions, we do not care for any resurrection in which the continuity of our individual consciousness is interrupted. Let us not speak like spoiled children, who want their caprices fulfilled, and if they cannot have their whims satisfied, want nothing at all. Let us rather become familiar with the real facts of life, and we shall learn that truth is grander than fiction, and real nature is better than an imaginary super-nature.

We are told by men that aspire to be radical free-thinkers, that this conception of immortality is a revival of old superstitions. What a strange misconception! Man will die, they say, and if man is dead, all is over with him; death is an absolute finality; and no one, so they maintain, will care for any other than a personal immortality, in which the continuity of consciousness is preserved.

Men of this class are not familiar with the facts of life. Not only is it true that life continues after the death of the individual, and that the work of every individual continues as one of the factors in the formation of the destinies of future generations, but also the care for what will be the state of things after our death is a most important motive in all our actions. We do care for what will take place after our death. We do care for the fates of our children, of our nation, of our country, of our ideals and hopes, and how our soul-life will affect the future development of mankind. We do care for such a continuance after death, we do care for an immortality of ourselves, even if the continuity of our consciousness be broken. The fact that we care for such things is the basis of ethics; it makes of man a moral being. This is the motive that compels even those who do not believe in personal immortality, to sacrifice their lives for their beloved ones, for their convictions, and for their ideals.

Let us celebrate Eastertime as one of the most prominent festivals of natural religion. It is the feast of resurrection, it proclaims the immortality of life, and preaches the moral command, not to live for this limited life of our individual existence only, but to aspire to the beyond. Beyond the grave there is more life, and it is in our power to form and to shape that life for good or for evil.

AN EASTER HOMILY.

BY L. J. VANCE.

OF the many bits of folk-lore which cluster round Eastertide may be mentioned the ancient custom of "clacking." This folk usage still obtains in those European countries where beggars carry a wooden dish with a movable cover which they clack and clatter, to show that it is empty. Into this clack or clappish people drop their offerings or alms. For, on Easter Day, we are expected to be full of charity and kindly deeds.

Indeed, we are continually reminded at Eastertide that the Master's words, "The poor ye have always with you," are freighted with a deep meaning. Forthwith an appeal is made for money. We are told to "Give! Give freely to the poor." On the other hand, there is a strange tendency in certain writers and speakers to exaggerate the social evils of the present, either overlooking or forgetting those of the past.

These people take up the cry that the rich are growing richer, and the poor, poorer; and then, Ichabod! Ichabod! the glory will depart from our people. Thus, if Christian countries are less happy than Pagan lands, it is because the gulf between Dives and Lazarus is now wider, deeper and more impassable than ever it was in the time of Christ. But, after all, we cannot shut our eyes to the fact that the 'poor' ('the defective classes' of the Tenth Census Report), ye have with you in increasing numbers. The greater part of the alarming increase of 'defectives' between 1870 and 1880 was found to have taken place in our cities.

The fact is that, in our crowded centres, there is a mass of mixed and struggling population called "the poor"—the unfit, the feeble, the scrofulous, the reckless, the intemperate, and the improvident. The destitute classes are often the victims of inherited taints. They are born into harsh environments. They are preternaturally inclined to passion and wickedness. They are apt to be short-lived, though their numbers remain about the same, from year to year, on account of recruits from the outside. The fecundity of these people comes up to the examples of the Old Testament, while their improvidence surpasses those of the New. For them, sufficient for the day is the evil thereof. They herd in dark dens and in great tenements, where family above family are packed in tiers. They share about as much in the amenities of our vaunted civilization as if they were in the wilds of Alaska. These 'poor' people, forsooth, ye have always with you—a constant reminder of that fashionable charity which has talked so much and accomplished so little. Besides, the multiplication of the reckless, degraded, and vicious, usually the result of a crapulous charity, brings both danger and duty—danger to be averted only by strict performance of duty.

And now the question is, Has "society" done its duty by the "poor"? Our fashionable philanthropists may tell you that there is hardly a decent want or a form of wretchedness for which provision has not been made; that every pain and ache of the body politic finds some sweet oblivious antidote. They may point to the motley throng of organized charities which struggle for existence in our great cities. They may also show you that modern charity is now a regularly organized business, with paid officials, with large forces of clerks, and with proper *esprit de corps*.

It is only too true that the charities of New York and Chicago, for example, are enormous, whether we consider the millions of dollars spent or wasted, as the case may be. The poor in New York may be born in a public home; they may be suckled and nursed in a public hospital; they may be doctored in a public dispensary; they may have their fuel and their neces-

saries furnished by public officials; they may be kept in prison, or in a reformatory, at the public cost; they may be placed in old age in a public hospital, and when they die, the public sees that they have a decent burial. Thus, the poor in New York can be born, nursed, fed, clothed, schooled, physicked, and cared for, all at the cost of the public. In a single sentence, metropolitan charity comes in at every step and fully provides for every want from the cradle to the grave.

For the purposes of this discussion, we may divide all our public measures of relief into two classes—those directed to out-door relief, and those directed to in-door relief.

As to the out-relief it is hard to understand why methods, which were condemned and abandoned in England after the Poor Law Reform in 1834, should be supposed to work with beneficial results in the United States. It is now urged that the present system of out-relief in our great cities should be done away with, in whole or in part. The argument is that this kind of relief weakens individual self-reliance; that it stimulates fraudulent begging and imposture; that it thus leads to hereditary pauperism; that it brings the idle poor into competition with the industrious poor; that, finally, it is a great waste of money and good energy.

"But surely," cry out our tender-hearted folk in alarm, "you would not inflict such hardship and suffering on the poor, as cutting off out-relief in our cities?" Yes, I would; why not? Those who talk about inflicting pain and punishment on the "poor," by abolishing out-relief in cities, evidently do not know what they are talking about. The opponents of the present methods make a direct appeal to experience, and to the tests of facts.

Mark carefully the experience of one or two of our large cities. Previous to 1879 the city of Brooklyn expended yearly about \$100,000 for out-relief. Suddenly, in the dead of winter, without any warning, without any substitute, without any mercy, the city cut off all such relief. Of course, there was terrible suffering that winter? The answer may be found in the official report. "In fact," says the report, "except for the saving of money, and the stopping of petty political corruption which has been carried on, and the cessation of the spectacle of hundreds of people passing through the streets with baskets of provisions furnished by the public, it would have been impossible to discover that the relief had been stopped."

To this experience may be added the facts, as they appeared, in Philadelphia. In 1880 the Board of Visitors cut down the \$70,000 of the year before to—well, nothing. But the suffering of the poor must have been very great, and the extra strain upon pri-

vate charities must have been enormous? It seems not. "For a few weeks," writes Dr. Walk, the Secretary of the Board—"for a few weeks we felt the increased pressure upon the private charities; but that was only temporary." Since then, comparatively small amount of out-relief has been given in Philadelphia.

Again, the Boards of Charities in the different states call attention, year after year, to the evils of this kind of relief. I cite the official language of State Commissioners in two western states. In their Report for 1886, the Illinois Commissioners say that, "under a wise system of relief the ratio of expenditure for aid, outside the almshouses, to that inside, ought to diminish; but the reverse is true."* The Ohio Commissioners bluntly declare that out-relief in cities "should be abolished altogether."

Once more, I would ask, Who are the philanthropists who spend the tax-payers' money? Economists, penologists, students of sociology—men who have shown ability to care for the poor, men who are recognized for their aptitude in dealing with the "social problem"? No, they are men (so the New York Commissioners of State Charities say), who are selected in party strife, and whose success depends upon the activity and zeal of those who share in the public bounty. (Report for 1884, p. 34.) They are men (so the Ohio Commissioners declare), without culture or special training for dealing with insane, helpless, and destitute human beings. They are (to quote the language of the Ohio Report), "an insuperable barrier to reform of abuses, or progress towards a competent management." In fine, the root of the defects of the administration of public relief lies in partisan politics, and the evils that flow therefrom.

Before going further, two plain propositions may here be advanced.

1. We must go into the inquiry how paupers are made.
2. We must base our charitable methods upon fundamental principles of common sense and ethics.

Referring to the first proposition, I venture to affirm that most people have only a vague idea how paupers are made. Nay, I am sure that our tender-hearted people would start back in surprise at being told that they generally aid in the multiplication of the reckless, the degraded, and the vicious. It is simply a matter of experience that giving alms to all who ask it tends to encourage idleness, improvidence, or imposture. Thus, it has recently been found out that, where public and private charities cover the same field, they often co-operate to subsidize scores of families in idleness and ignorance. That is to say, clear-sighted philanthropists discovered at last that

different societies often gave relief to the same people at the same time.

Therefore, Charity Organization Societies have been established in the principal cities of the United States. Societies of this kind were first organized by Von der Heydt in Elberfeld, Germany, in 1853. The methods of charity organization are: first, the establishment of a central bureau or clearing-house through which all charitable agencies can work in co operation; secondly, the creation of an agency for investigation and registration of those to whom relief has been given; thirdly, the division of a town or city into wards, and each ward under the supervision of four, five or half a dozen visitors. Such a scheme of charity organization has the merit of doing away with two evils of long standing—overlapping and mendicant imposture.

There is a beautiful notion afloat that the "poor" are to take from "society" all the bread that they can induce society to give. Now, paupers will be made as long as people think that, if bread comes it makes no difference how it comes. To give immediately to the individual case of suffering before us is one thing; but, to track out the various and hidden courses of want and suffering, to make comprehensive plans for the prevention or the curing of vice and improvidence is another and entirely different thing.

Again, has it never occurred to fashionable philanthropists that their methods of relief when not cruel are clearly immoral? Witness the guise in which charity often comes to relieve the poor. In the dead of winter, a cry not infrequently goes up from the "outcast" of great cities. Plainly speaking, those who get up a magnificent Charity Ball do not investigate, nor do they mean to be cruel. The sparkling diamonds, the rich dresses, and the glittering scene at the Ball are all described in the same paper that chronicles the direst poverty and the meanest suffering. Once more the pains of Lazarus are narcotized till the glorious springtime. Then come May flowers, Coney Island, Cappa's Band in Central Park, chasing the ugly phantoms of winter across High Bridge till the snow flies again.

Let us not lose sight of the ethics of charity. We all admit that we can no more escape the wages of sin than we can from the sickness and pain flowing from a violation of the laws of health. We all believe that a lack of self-reliance and prudence is followed by privation and want. But a certain kind of Easter charity would overturn or neutralize this expiatory principle in the moral world. It is time to protest against a certain kind of fashionable philanthropy which pampers and coddles people who are the victims of their own wrong doing.

Let us ask ourselves, Is this practice of confound-

ing right and wrong likely to prove beneficial in the long run? To aid the bad in multiplying, says Mr. Spencer, is the same as maliciously providing for our descendants a multitude of enemies. We must take into account what is unseen as well as what is seen. For, what is seen, I am told, is History. What is not seen is—Mystery. The seen may be Margaret Jukes, a gutter child; the unseen may be six generations of her worthless descendants—thieves, drunkards, prostitutes, and paupers.

According to the late Prof. Clifford, science is nothing but organized common sense. Our modern philanthropy should become scientific and our Easter charities should be based on organized common sense.

AMERICAN AUGURIES.*

BY FELIX L. OSWALD.

II.

THE geological surveys of the Pacific Slope have verified the Spanish tradition of the *Veta Madre*—the existence of a trunk vein of precious ore running along the backbone of our continent from Chili to British North America. Within the next fifty years the development of the western mining industries will lead to one certain change in the monetary system of the commercial nations, viz., the depreciation of silver. Nevada alone contains fairly accessible silver ore enough to plate the surface of the state an inch thick, and the constant improvement of blasting and mining contrivances will soon make the material of our silver coins as common as copper and lead. "Bimetallism" may continue, but it will probably be changed to a basis of gold and platina.

The gold-fever of '49 will repeat itself at various points of the Pacific coast-lands, in the Tulare Basin, and probably in the Contra Costa Range; but independently of such *bonanzas* California will continue her career of increasing prosperity. Her orchards and vineyards will enable us to dispense with Smyrna; and with tree-plantations enough to counteract the excessive aridity, the eternal summer of the southern counties will make their climate the most desirable in the world, and San Diego an international sanitarium.

In 1950 the United States will have 200,000,000 inhabitants, including a few million Spanish mestizos, for the southern frontier of our republic will then probably coincide with the southern boundary of the *Tierra templada*, the temperate tableland that stretches to the Isthmus of Tehuantepec, but which further south becomes too low to counteract the neighborhood of the equator. The frugivorous Indians do not deal in politics, and the hidalgos will not trouble us much more than in California, but their language will maintain a brave struggle for existence, and will long sur-

* Copyrighted under "American Auguries."

vive as the vernacular of the peasant population. That Trans-Rio Grande Department with its *ollas* and pepper-sauces, will be the Hindostan of Anglo-America, and enrich many a New England nabob, as well as his physician; but in its highlands our landscape gardeners will reproduce the Elysian fields of the classic mountain-countries. There the amateurs of climatic beatitude will pass the winter months till March, then recross the Rio Grande, enjoy the spring of the southern Alleghanies, spend the midsummer weeks in the White Mountains, and use their return-tickets in time to eat their Thanksgiving dinner with a dessert of fresh bananas.

When the Gulf States shall be studded with southern Chicagos the increase of the passenger traffic will make it worth while to build railroads on the Eads-Garrison plan, roads with a ten foot gauge, and proportionate engines, that will make the trip from Maine to Oaxaca in forty-eight hours. Steamboats, too, will manage to combine safety with greater speed, and the perils of transatlantic travel will, before long, be diminished by the adoption of Captain Sommering's system of "companion-steamers." Captain Sommering proposes to let steamers start pairwise and keep in sight of each other by means of fog-bells and electric lights. If one of the boats should meet with an accident, its companion will pounce to the rescue, and, as it is extremely improbable that both of them should founder at the same time, the perils of the sea will thus be reduced to a minimum.

Transatlantic steamers will leave and arrive every few hours, and not in New York only, for by that time Baltimore, and probably Norfolk and Savannah, will have Castle Gardens of their own. Worn-out nations cease to colonize; in the immigration statistics of the twentieth century the Italians and French will be outnumbered by the North-Austrians, the Hungarians, and the manful natives of the Danubian principalities. And even before that time the inevitable crisis of the Eastern Question may flood our mountain states with a host of turbaned refugees—not too honest, perhaps, for the safety of stray sheep, but far too proud to beg. In Adrianople the Circassian fugitives began by pawning their children, and were just going to raffle their pistols, when the arrival of a government commissioner enabled them to redeem their pledges. The current of Chinese immigration will be deflected toward Polynesia, and the black man and brother will wane apace and dissolve in the tide of the Caucasian influx; but the Mormon grievance, at the present rate of progress, will so speedily outgrow control that the chance of its abatement will soon depend upon the influence of schisms. How unavailing repressive legislation and political stratagems are for that purpose was strikingly illustrated by the effect of the recent

elections, which aroused, instead of depressing, the defiant zeal of the "western Moslem." "Clouds have arisen on the People's horizon," says the *Deseret News* of February 11, 1890, "but behind them the sun of truth and freedom shines as brightly as ever. After a brief period of prevailing shadows, the mists of wrong will be dispelled, and the rights of the community, which have been shamefully invaded, will be re-established, nevermore to be trodden upon, under the machinations of the worst class of political thieves that ever disgraced the free government of America," etc., etc.

The religion of the future may profess ulterior aims that cannot be inferred from the tendencies of the present transition period, but the promotion of earthly happiness will be recognized as one of its objects, and that principle will assert its influence in the management of the North American cities. Every large town will have a system of free public baths. Of all the physical disabilities of our laboring classes, the want of free bathing facilities is probably the most severely felt, though often, perhaps, in the form of a vague and undefined discomfort. The summer-temperature of our Atlantic Slope, from Boston to Savannah, often equals that of Asiatic Turkey, and in twenty cities of more than 50,000 inhabitants the midsummer martyrdom of the poor is surpassed only by the dog-days misery of the British residents of Bombay and Singapore. Some of our eastern cities are surrounded by watering-places, which are not only cheaper, but more agreeable than those of western Europe, and which may be reached in two to three hours by any gentleman who has two dollars a day to spare. We have surf-baths, cheap bath houses, delightfully lonely beaches, and seaside swimming-schools within an hour's ride of Brooklyn and Baltimore, accessible at excursion rates ten or twelve times each summer day. But how many of our working men can avail themselves of those liberal terms? How many even of our small shopkeepers and trade-masters can afford to visit Atlantic City and Cape May as the hoddie-carrier of Buda Pesth visits his Raizen Bad, and the Lyons silk-weaver the Bains de Bellefontaine? The neighborhood of a large river or lake only makes the deprivation more tantalizing, for, not to mention the defilement of their waters by factories and fat-rendering establishments, the action of our municipal legislators upon the subject of public bathing is directly obstructive. All our lakeshore cities, and the principal towns along the Ohio and Mississippi have an elaborate code of by-laws against bathing and swimming within the corporate limits, and in Chicago, St. Louis, and Cincinnati not a summer-day passes without the indictment of some poor lad who has become entangled in the contradictions between the physical laws

of God and the ethics of his native city. The visible violation of such statutes can hardly be more demoralizing than the constant temptation to evade them, for the instinct which guides the gamin waterwards is as natural as the craving after fruit and cool drinking-water in warm weather, or after warm clothing in winter-time.

Cold water is a tonic and antiseptic, and its frequent external application would almost counteract the sickening effects of our calorific diet, our woolen garments, our kitchen and workshop fires, and other heat-producing artifices which make us dread the advent of the warm season as an annual instalment of purgatory. All our domestic habits tend to make winter more comfortable, and summer as uncomfortable as possible, and that we have actually succeeded in reversing the order of Nature is proved by the yearly exodus of our clergymen and merchant-princes, and the epidemic hegiras to Europe at the approach of the summer-solstice, and the recommencement of the "gay season" at the beginning of winter. We return to enjoy our native clime when our migratory birds escape to foreign parts, and take to our heels when they return to celebrate the season of song and sunshine. There is no doubt that the municipal enactments referred to have been dictated by an honest sense of duty, but it is equally certain that the beneficial effect of a legislative effort in the opposite direction could not be surpassed by the repeal of an ordinance against open windows in July, or the use of fuel in January. Thus far our mid-summer misery has been systematically aggravated, and we may be sure that its natural remedies will be systematically improved as soon as the prevention of moral corruption and the promotion of physical health have been recognized as equivalent duties.

Perfect health, however, depends upon sound and frequent bodily exercise, and in fifty years from now there will be a gymnasium in every American school, as there is a drug-shop in every Buddhist temple. The education of the body and of the mind will go hand in hand. Health is wealth, and the shrewdness of the "Eclectic Nation" will not fail to profit by the most useful lesson which the experience of the Old World could have imparted: the regenerative influence of the *Turnbund*, and the unmistakable proof that physical debility is sure either to prevent or to delay success in every human enterprise. Since the invention of gunpowder the implements of warfare have become more and more automatic, but the chance of victory is still biased by the vigor, steadiness and power of endurance of the human hands that serve, and the human feet that carry those implements. How else shall we explain the fact that in nine out of ten international contests the men of the

North have prevailed against their southern adversaries? Justice, superiority of numbers, of intelligence, and even of weapons, were often on the other side, but the Northmen, thanks to their hardy climate, were favored by superior physical strength. The same holds good of the contests of rival merchants, manufacturers, and founders of rival sects, we might add, for health is the basis of all moral energy. Brilliant talents may be inherited in conjunction with wretched health, but their effective value will always depend upon physical conditions which physical exercise rarely fails to improve. Goethe, living in the ante-Turnbund era, used to recommend wood-chopping as a specific for mental exhaustion, "because," he said, "every physical effort exercises an invigorating influence on the organ of the soul."

That the effeminizing effects of city-life have already begun to manifest themselves in East America cannot be doubted by the most superficial observer. The eastern half of our continent will soon be Europeanized; millions of our young men will follow occupations involving indoor life and brain-work, or manual labor as unprofitable from a hygienic point of view, for drudgery is not exercise, and the lost opportunity and necessity for physical development must, before long, be compensated by adequate substitutes.

Gymnastics supply that want in the cheapest and most effective way—but, as the Rev. Sidney Smith reminds us: "Communities, like children, generally make wry faces at what is to do them good, and it is necessary sometimes to hold the nose and force the medicine down the throat." Physical education, therefore, ought to be gratuitous, and to a certain degree compulsory. In private colleges the adoption of the plan would, of course, remain optional with the managers; but public patronage would soon discriminate in favor of institutions having provided some safeguard against a contingency not unfrequent in the chronicle of a modern *alma mater*: the physical collapse of students undergoing a forcing process of intellectual development.

The sports of our children, like our national game, are trials of skill, rather than of strength, and if we should stick to baseball while our European cousins renew the games of the Olympic arena, the West might have cause to dread the issue of an intercontinental war. The victors of Xeres de la Frontera would have smiled at the idea of a defensive war against the despised Giaours, but when they introduced Mauritanian dances, and cock-fights, and left tournaments to their Christian rivals, their power in the peninsula began to decline, in spite of their temperance, their frugality, and superior scientific attainments.

Not luxury, not gluttony or intemperance, but physical indolence, is the name of the disease that has

prostrated the descendants of the *preux chevaliers* and the haughty countrymen of the Cid. The tough constitution of the Spanish hidalgos resisted the introduction of Oriental wines and vices, and would have resisted the influx of the American-silver deluge; but the invention of gunpowder was the turning-point of their prosperity. Not when they commenced to cultivate their minds, as Jean Jacques Rousseau fancied, but when they ceased to exercise their bodies, they began to lose ground against their northern rivals, who loved athletic sports for their own sake and whose manhood refused to abdicate in favor of saltpetre. Nations have not been ruined by abandoning themselves to luxurious habits but by abandoning those habits which enabled them to resist the effects of luxury. Milo of Crotona, the Emperor Maximin, the heroes of the Iliad, and the iron-fisted followers of Alaric exceeded other mortals in gluttony as much as in martial prowess, and were as fond of wine as of war. Italy does not owe the loss of her prestige to the vices of Crotona, but to the vices of Sybaris.

[TO BE CONTINUED.]

IS DEATH A FINALITY?

It is a well known fact to which scientists and thinkers have more than once called our attention, that there is no natural death among the lowly organized animals that stand at the bottom of the ladder of evolution. Moners and amœbas grow and divide; and if they are not starved or crushed to death, they will live and multiply into eternity. The moner which we fish out of a pond of stagnant water for observation to-day, is the same individual or part of the same individual that lived æons ago, long long before man appeared upon earth.

Is not man a part of animal life, and indeed the highest part? How is it that he must die? If immortality is the natural state of those creatures of which all higher animate beings are but complex and differentiated forms, how did it happen that death came into this world of life?

DEATH AND BIRTH.

Death is the twin of birth. It seems natural to say that all that lives must die. This, however, is a wrong statement of facts. It is more correct to say that every creature that is born will die. Birth is the beginning of a new being and death is its end. Yet we shall easily recognize the truth that neither birth is an absolutely new beginning nor death an absolute finality. Beginning and end of individual life are relative.

When we investigate the problem of the origin of death, we must at the same time answer the question, "How did birth come into the world?"

The moner knows of no birth; it grows and di-

vides, thus passing beyond the limits of its individual existence. There is not a mother-moner, and its child; there are only the results of a division. The same moner is before us, not in one coherent lump, but in two parts.



PROPAGATION OF A MONER.

The propagation of moners, the lowliest organized of beings, occurs by spontaneous division. *A*, The complete moner—a Protamoner. *B*, Splitting up of the same by a median contraction, into two halves. *C*, Each of the two halves has separated from its companion and makes up an independent individual. (After Haeckel.)

The process is a little more complicated in such unicellular organisms as the *amœba sphærococcus* for instance. This amœba contains a nucleus (*A, b*), with a nucleolus (*A, a*); and its plasma (*A, c*) is encased in a membrane (*A, d*). When the amœba grows the nucleolus doubles, and the plasma bursts its membrane (as seen in *B*). Each nucleolus forms its own nucleus, and the plasma gathering round each nucleus begins to separate into two parts, until the division is perfect.



PROPAGATION OF AMŒBA SPHÆROCOCCLUS.

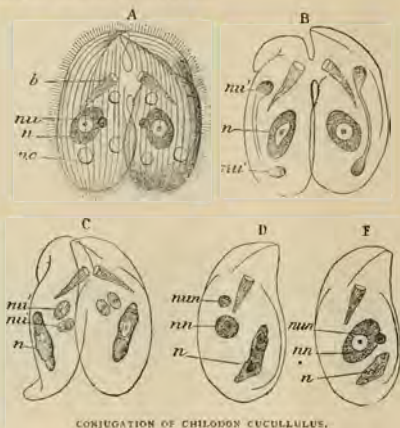
The propagation of this unicellular organism takes place by spontaneous division. *A*, Encased amœba, a simple spherical cell, consisting of a lump of protoplasm (*c*), which contains a nucleus (*b*) and a nucleolus (*a*), and is enclosed in a membrane. *B*, The released amœba that has burst its cyst or membranous pouch and left it. Its nucleus contains two nucleoli. *C*, The amœba begins to divide, its nucleus splitting up into two nuclei and the plasma between the two contracting. *D*, The division is completed, the plasma also having been completely divided into two parts (*D a* and *D b*). (After Haeckel, *Natürliche Schöpfungsgeschichte*.)

The next step in the evolution of a 'growth beyond the limits of individual existence' is gemmation. Gemmation is a process that can be observed in spring in all trees and flowers. A bud appears, and grows rapidly to maturity. Many worms, some medusas, and some corals multiply by gemmation. In gemmation the parts are not equal at the start. There is a mother, and a child; for the division is only partial, and the child begins as a germ.

Sporogony is not much different from gemmation; it is the secretion of germinal cells, called spores.

The spores possess the faculty of developing the same structures of which its mother organism consists.

Sporogony is the connecting link leading to sexual generation, which for all higher stages of life is destined to become the sole method of procreation. Among that order of beings whose nature is not yet so defined that they can be classed either with animals or with plants, and which Professor Haeckel calls protists, many instances are to be found where the procreation of spores results from a union of two individual cells. These cells may, in many cases, yet not always, be of a homogeneous nature. And in the course of further advancement the two cells become distinct; they commence to disintegrate into two different and complementary elements, which show an affinity for one another, similar to that between chemical alkalis and bases which tend to unite into salts. As soon as this differentiation takes place we have examples of sexual generation.



CONJUGATION OF CHILODON CUCULLULUS.

A shows the two individuals in immediate contact; *b*, mouth; *v, c.*, contractile vesicle; *n*, nucleus; *nn*, nucleolus or attendant nucleus, i. e., new formation of a smaller nucleus.

B. The attendant nucleus divides into two segments, *nn'* and *nn''*. The old nucleus *n* shows signs of regression.

C. After the division of the segments has been completely effected, one segment of each individual is exchanged for one of the other individual, when a union of both as thus exchanged takes place.

D shows an unequal breaking up of the newly formed mixed nucleus into a larger (*nn'*) and a smaller (*nnn*) segment.

E. The old *n* nucleus dries up, and the larger segment of the new-formed nucleus assumes its function in the individual; the smaller segment forms the new attendant nucleus.

Many details of this process, the investigations regarding which have been carried on particularly by Bütschli, Maupas, and Balbiani, have not as yet been satisfactorily established. Whether the exchange of the differentiated parts takes place through the mouth or through a special orifice, could not, owing to the small size of the creatures, be determined. Still, whatever obscurity may prevail in matters of particular process, it is firmly settled that we have to deal in such cases with a fertilization constituting the beginning of sexual generation.

Multiplication by division is not entirely limited to the very lowest creatures; we find it also among animals that stand comparatively high in the scale

of evolution, much higher at least than the moner. Some polyps, and among them corals, multiply by division. Their mouths, having the appearance of a flower, grow broader in size; the opposite edges approach each other at the median line, until they unite. Thus the two corners of the mouth are separated for good and form two corals upon one stalk.

There is, for the individual animals that come into existence, a great advantage in the process of multiplication by division. Every moner, every polyp thus produced starts in life as a full-fledged creature. There is no state of infancy with all its troubles and dangers to be passed through, for these creatures make their first appearance in a state of maturity. It is natural that the form and soul of the original organism should thus be preserved in all the details of their parts. The heredity of these animals is no similarity, but absolute identity.

These advantages are lost in the measure that the procreation of new individuals approaches the system of sexual generation. Buds are at first very tender and may easily be injured before they are as strong as their mother organism. Spores are helpless and may be devoured as food by the many hungry animals that swarm about them. And the higher we rise in the scale of evolution the greater become the difficulties of a germ to reach maturity. These disadvantages to the individual, however, are richly overbalanced by the higher advantages afforded through greater possibilities of development and progress. The struggle for life grows fiercer, yet in and through the struggle the organisms grow stronger; they adapt themselves to conditions, first unconsciously, then consciously, and in man they acquire that foresight and circumspection which make him the lord of creation.

Those animals that survive can upon the whole survive only by great efforts; they were not strong at the start, so they had to learn to be strong; they were unmindful in the presence of dangers, so they had to learn to be on their guard in perilous situations. In every respect they had to pass through a severe school and every single virtue that can lead them onwards, they had to acquire themselves.

Innumerable individuals, it is true, are sacrificed in the struggle for existence; yet their lives are not mere waste in the household of nature: they are the martyrs of progress; and the generation of to-day lives upon the fruits of their sacrifice.

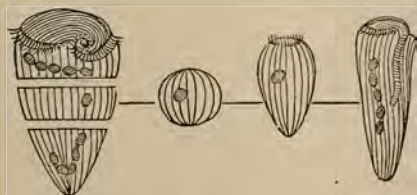
In sexual generation there is a blending of two individuals which affords greater possibilities for improvement. The conditions under which the complementary germs unite, and the proportions of their mixture may be different. Thus a variety is produced which admits of a selection of the best, the strongest, and the most adapted for survival. The original con-

servatism of life that tended to reproduce itself exactly, down to the minutest details, is in this way not abolished, but modified or checked by the possibility of changes. Life becomes more plastic; and the severe teacher of life, nature, takes care that bad qualities unfit for preservation will soon discontinue.

WHENCE CAME DEATH?

There is a moral in the victory of sexual generation over the multiplication by division. Sexual or amphigynous generation is less egotistical than non-sexual or monogynous generation. It is no mere reproduction of self, but the reproduction of a union of two selves. Sexual generation, propagation by birth, and the helplessness of offspring in infancy impose heavy duties, as of nursing and education, upon parent-individuals; yet the performance of these duties is richly rewarded in the progress of the race. These duties teach even creatures of lower rank to care for the preservation of their kind more in their children than in their individual selves. The rise to higher planes in evolution is conditioned by the development of moral faculties.

The sacrifice that creatures have to bring for the amelioration of their offspring is greater still: they have to sacrifice their individual immortality. It appears that the regenerative faculty of an amoeba depends upon the function of its nucleus, perhaps even of the nucleolus. The ingenious experiments of Gruber, Nussbaum, and Ehrenberg, prove, that if we cut out the nucleus from one of the lowly organisms the animal will continue to live, but that it has lost the power of renewing its form.* Balbiani, who repeated the experiments of Gruber upon *Stentor cornutus*, shows in the adjoined diagram the renewal of the whole individual from any part if but one nucleus be preserved.



ARTIFICIAL DIVISION OF STENTOR CORNUTUS.

The nucleus of *Stentor cornutus* consists of a chain of nuclear beads. The prefixed figure shows the restoration of the middle section which contains only a single nucleus. After M. Balbiani.†

It is the nucleus that in lower animals represents the inner organs of reproduction, which, as we have

seen, in the two sexes are differentiated into two complementary parts. In a child the differentiation of the nucleus into either a male or a female germ has begun but is not yet perfect. The child, still possessing a re-formative nucleus, thus grows; and in many respects its tender system possesses more vitality than an adult person. But as soon as the child has reached the state of maturity, when the differentiation of the nucleus has become perfect, its growth ceases. The nucleus in each individual of the two sexes no longer being complete loses its re-formative power with regard to the individual and can temporarily regain it only through fecundation. Properly speaking neither man nor woman is a perfect and independent being. Separately they are mortals, they are doomed to die. They will live for a while like a micro organism whose nucleus is imperfect. Yet in their union, man and woman together, are as immortal as the moner.

Upon this fact is based the holiness of matrimony. Matrimony is a union not for this life only, but for our life after death in the coming generations. This makes of wedlock an act of religious sanctity; and it is apparent that it should not be entered upon merely from personal considerations, for the benefit, the pleasure, or happiness of either or both parties. The future of humanity depends upon the sacredness of matrimony.

Birth, we have learned, is a special kind of multiplication; and, as such, it is a growth beyond the limits of individual existence. Before the life of a child commenced, it was a part of its parents; and its existence is nothing but an outgrowth and a continuation of their lives. Thus the immortality of the moner is not lost in the higher stages of organized life, it only becomes more spiritual. It ceases more and more to be an identity of the body, and becomes a preservation of the soul. The soul of an animal, however, is not its mere shape, not its present form alone, but its formative principle also: the form of special motions, and the form to which these motions in a further evolution will lead. The soul of an aspiring man is not only the faculties he possesses at present, but the ideals also which he aspires to; it is the direction of his energy and the goal of his endeavors. This preservation of human souls, admitting of development, is therefore greatly superior to the conservatism of the soul-life in moners; it is the preservation, not of the present form, but of an upward movement, of the soul of soul, and this leads to a realization of ever higher possibilities.

Is the immortality of soul-life not more valuable than individual existence? If the death of ourselves, as individuals, is the price thereof, let Death have his prey, and let him teach us the earnestness of life,

* *Biologisches Centralblatt*, 1885, p. 73; *Encyclopedia Britannica*, Protozoa.

† From Alfred Binet's monograph, *The Psychic Life of Micro-Organisms* Open Court Pub. Co., Chicago, Ill.

so that we may regulate our conduct, not from the standpoint of narrow egotism, not according to the view that death is a finality, but from the ethical standpoint of immortality.

THE ETHICS OF IMMORTALITY.

Death is no finality, and we must not form our rules of conduct to accord with the idea that the exit of our individual life is the end of all. People who have no interests, no hopes or fears, no cares or ideals that reach beyond the grave, may enjoy themselves better than others who live their lives with a constant prospect of immortality; yet, in the long run of many generations they will go to the wall. Nature does not preserve the individual that cares for itself alone. But nature preserves those individual features of great men who conquer egotism, and lead moral lives of self-discipline and ideal aspirations.

The immortality of the soul was instinctively felt even before man could have a distinct and clear idea about its possibility. The moral teachers of mankind found it necessary to build their ethics upon this truth, and it is not at all to be wondered at that the opinions of the churches survived in the struggle for existence against those people who looked upon death as an absolute finality. The belief in the immortality of soul life is a marvelous preservative among the many dangers and temptations of the world, and the ethics that are derived therefrom are innervating and refreshing and strengthening.

The immortality of the soul was taught to be the migration of a disembodied ghost, who was supposed to wander through unknown haunts, or to soar upward to some distant star. We now know that this view is, upon scientific grounds, untenable. But this erroneous conception was, after all, truer than the flat denial of any immortality. The truth that lives in the error keeps it alive, to the great astonishment of those who look upon the immortality of the soul as a mere superstition.

The ethics that Sophocles taught in his time was a rule of conduct dictated by a regard for our state after death. There was nothing higher, nothing greater to a Greek citizen than obedience to the laws of his country. Yet the regard for our state after death, the poet declared, is holier still; it is an unwritten law graven in our hearts, and it rules supreme over all the written laws of states. The ruler of a city may impiously deny the rite of burial to his enemy; he may, by the written law of state authority, inflict capital punishment upon the transgressor. But a woman like Antigone will disobey the royal authority, because of the higher authority of the unwritten law in her heart. An offence like that is a righteous offence.

Sophocles makes her declare to Creon the motive of her deed in the following lines:

"Thus have I righteously offended here.
For longer time, methinks, have I to please
The dwellers in that world than those in this.
For I shall rest forever there; but thou
Dishonour, if thou wilt, the laws divine."

The whole gist of ethics—if it be real ethics, and not mere worldly prudence—is the regulation of life from the standpoint of eternity. The attempt has been made by philosophers who look upon death as a finality, to construct a new kind of ethics which should have nothing to do with any aspirations that reach beyond the grave. They succeeded to a certain extent; they succeeded in so far as they showed that all egotism will necessarily fail to accomplish its ends, and that those who yearn for happiness will be sure never to gain it. Therefore, they said, if you want happiness, do not seek it, do not long for it, for if you do, you will miss it.* This is the negative result of an attempt to base ethics on man's yearning for happiness; and this result is most valuable, in so far as it proves that our yearning for happiness is just that instinct which must be checked by the behests of ethics.

Ethics must be based on facts, and must be applied to facts. The facts of soul-life and its relations to the surrounding world, do not make it likely that living creatures exist for the mere enjoyment of life. Happiness is one important component of life. But so is work, so is recreation, so is the endeavor to progress, and so is the satisfaction of having accomplished something useful for humanity. Happiness is not the end and purpose of life. If it were, the great pessimist, Schopenhauer, would be right, that life is not worth its own troubles. Life is the dénouement, the development, the evolution of the cosmos. If life can be said, at all, to have a purpose, it is its own evolution. And the evolution of life is no mere blind struggle for existence, but a race in an arena for ethical aspirations.

Let us not look for ease in this world unless it be on the eve of a life that has been full of aspirations and labor. There is no ease for those who wish to progress. And let us find satisfaction not in the pleasures of life, but in the noble struggle for advancement and amelioration.

Facts being as they are, we must adapt ourselves to facts. If we do, we shall master them and govern the course of nature. But our adaptation to facts must not be from to-day to to-morrow, but so far as we can see. It must be made from the standpoint of immor-

* Mr. Herbert Spencer in the *Popular Scientific Monthly* for August, 1889, compares happiness to the bull's eye of a target which must not be directly aimed at. "If you do," the instructor in archery says, "you will inevitably miss it." Happiness, we agree with Mr. Spencer, is generally desired; but says Mr. Spencer, "happiness will not be found if it is directly sought."

ality, and with due regard for the unity of all life upon earth and in consideration of the grand possibilities and noble ideals of mankind. Here lies the basis of ethical aspirations.

P. C.

AGNOSTICISM VERSUS GNOTICISM.

BY PAUL K. SHIPMAN.

(CLOSING REMARKS FOR THE PLAINTIFF.)

The Editor of *The Open Court*, in his reply to my rejoinder, has made, I doubt not, the ablest argument of which his case admits; yet he has said nothing as to any point of mine, I think, which a simple reference to my presentation of the point will not effectually rebut. With his permission, however, I will add a word in conclusion. Nothing would suit me better, if the circumstances warranted it, than to take up all the articles of his reply, in their order, and give to each a distinct commentary; but this would be trifling with the space of *The Open Court*, if not with the time of the jury. It would be "wasteful, and ridiculous excess." But a closing word may not be out of place.

In opening my rejoinder, I defined agnosticism in the following terms: "The unknowable is that which not merely is known as a fact only, but is incapable of being known otherwise—known as existing, but not knowable in its nature—the incomprehensible. The recognition of something which admits of this knowledge only is agnosticism." Bearing in mind this definition, the jury of *The Open Court* will please turn their attention again to these words of the Presiding Judge, among others of the same tenor: "The question itself, as to the cause of existence in general, is not admissible, for the law of causation is applicable to all phenomena of nature, but not to the existence of nature, which must be accepted as a fact." This is saying that existence in general not merely is known as a fact only, but is incapable of being known otherwise; and this, in turn, is admitting that existence in general is unknowable. The admission, it will be observed, is direct, distinct, definitive; it is as clear as noonday. Nevertheless, the Editor denies it. What does his denial mean? It is evidently absurd, yet it comes from a mind of high culture, and of uncommon gifts—richly endowed and admirably trained. What does it all mean?

To the gratification of the jury, in a double sense, perhaps, I shall close the pending discussion, so far as I am concerned, by answering this knotty question, which, to say the truth, I have been putting to myself at every stage of the discussion. In reality, the sole purpose of the discussion, on my part, has been to get an answer to this question. Thanks to my chivalrous and accomplished adversary, the key of the riddle is now in my hands. "It is true," he says, "that I concede the existence of insolvable problems; but the existence of insolvable problems proves nothing in favor of agnosticism. Let us see what an insolvable problem is. Take, as an instance, the squaring of the circle." He then mentions the fact that Prof. Lindemann, of the University of Königsberg, has recently "taken the immense trouble to demonstrate that the problem is insolvable, and to explain why it is insolvable," and proceeds: "This settles the question. The squaring of the circle being shown to be impossible, the problem is solved. The solution is negative." Exactly. All is now plain.

An insolvable problem, in the Editor's vocabulary, it seems, is a problem that is solved by proving that it can never be solved: from which it follows that there is after all no such thing as an insolvable problem. If a problem does not admit of a positive solution, it admits of a negative one, and either way the problem is solved. Applying this short and easy method to the question in hand, he asserts, with the true hardihood of the theorist, that existence in general is knowable, because it is demonstrably unknowable: the comprehension of it being shown to be impossible,

it is comprehended—the question is solved. The solution, to be sure, is negative, demonstrating that existence in general is unknowable; but, in cases of necessity, a solution is a solution, whether negative or positive. The gnostic must have his pound of knowability. The theory gives it; and he stands ready, with his long knife of a negative solution, to cut it from the heart of reason—our Shylocking Shylock. A positive solution, indeed, is required to solve a solvable problem; but, when we come to an insolvable problem, no solution is as good as a solution, and equally entitles us to speak of the problem as solved. Consequently, he reasons, with delicious but systematic inconsequence, existence in general, being an insolvable problem, is *ipso facto* solved—is not incomprehensible for the reason that it is incomprehensible; and to affirm (in the face of its demonstrated incomprehensibility) that it is incomprehensible is—agnosticism.

As the clown says of Sir Toby Belch, this is "admirable fooling"; but, gentlemen of the jury, I submit to you whether or not it is philosophy. One thing is certain. It unties all the knots of my question: it unlocks the riddle. In admitting that existence in general comes under the definition of the unknowable, and yet denying that it is unknowable, he means, simply and soberly, that a thing is not unknowable when it is shown to be unknowable: nothing more, nothing—I was about to say less, but that goes without saying, for there is nothing less. And this is monism—positive monism! I hope no one will accuse me of being wise after the fact, if I say that from the first I have suspected as much. But it seemed incredible. Who could have felt sure that the smoke-begotten genie, whose feet were on the earth and whose head was in the clouds, could be put snugly, by a little shaking, into the vial of this verbal quirk? Well, asking his pardon, and everybody else's, I am glad that he is vialled at last, and if I were his discoverer, I can but think that I should instantly replace the stopper, and seal it very close; but one can never tell with certainty what one might do in a dire extremity.

Gentlemen, I shall not tax your patience further. You of course will listen to the final instructions of His Honor, with the interest which their ability cannot fail to command, and with the respect and sympathy that so well become not only your relation to his high office, but the solid merits of his character: be it so. I have no fear for the result. To your judgments, enlightened certainly if not quite unbiased, I confidently entrust the case.

POSITIVISM VERSUS AGNOSTICISM.

We should have no objection to Mr. Shipman's agnosticism if he were to say: "Facts are the basis of all knowledge; knowledge cannot and must not go beyond facts, for knowledge is nothing else than a systematized representation of facts." In such a case, only the name of agnosticism would appear objectionable. However, Mr. Shipman again and again speaks of a fact the existence of which alone is knowable, but which otherwise is said to be incapable of being known. Such a thing is a nonentity, an impossibility; it is not a fact. Facts are always knowable, not only in their general existence but in their concrete individual manifestations also. Facts are knowable, classifiable, and comprehensible.

In affirmation of his position (1) Mr. Shipman again quotes from *Fundamental Problems* the sentence that "the law of causation is not applicable to existence in general," and maintains this to be tantamount to a concession on my part that "existence in general" is unknowable; and (2), he relies on the existence of insolvable problems.*

Mr. Shipman's chief mistake is his lack of accuracy in distinction. If I speak of "insolvable problems," he substitutes for

*The two questions must not be confounded—as they are by Mr. Shipman—who speaks as if I had declared that the nature of existence in general were an insolvable problem.

"insolvable" the expression "incomprehensible"; if I speak of the "inadmissibility of causation to existence in general," he substitutes "unknowability of existence in general" and then most positively affirms that I had conceded, I had admitted, all he wants. He introduces by such phrases as "he asserts" and "he reasons" certain sentences which, if the quotation-marks were not missing, I would call pseudo-quotations. These quasi-quotations are rendered nonsensical by the substitution of the very ideas between which Mr. Shipman has proved himself unable to discriminate; and he then ingenuously applauds his imaginary victory. Mr. Shipman acts in conformity with the principle that "a bold assertion is half the proof"; but he merely demonstrates by his triumphant attitude that he has utterly failed to understand my arguments.

I submit the following explanations to Mr. Shipman's new, or rather re-newed, misapprehensions.

A LESSON IN ABSTRACTION.

"Existence in general" is an abstraction. What is an abstraction? An abstraction is a word-symbol by which we comprehend a special quality observed in several things. Redness is an abstraction; it is a certain quality by virtue of which the luminous ether-particles vibrate in such a way as to produce in an eye the special sensation which we call red. Redness is not a thing but a quality which we notice in many objects around us; viz., in a drop of blood, in red roses, in the brilliant light of a sunset, etc. We have abstracted, i. e., we have taken away in our mind, this quality from the various red objects, omitting all their other qualities.

"Existence in general" denotes the quality that all things that exist have in common; and it omits all those qualities that they have not in common. "Existence in general" excludes time, it excludes change, it thus excludes also causation. The law of cause and effect is applicable to all phenomena of nature, but of course it is not applicable to existence in general, if the latter means that quality which has no reference to time, to change, and to causation, and which in the diamond, for instance, would remain in case the diamond were transformed into other forms of carbon.

If changes were to be included in the term "existence in general," the law of cause and effect would be applicable to "existence in general" just as much as to any natural phenomenon. In that case the present state of existence would have to be considered as the effect of its past state and the cause of its future state; and these changes are observable, classifiable, knowable, comprehensible.

Does Mr. Shipman seriously maintain that "existence in general" is an unknowable something, while the existing things from which this idea has been abstracted are, as he confesses, knowable?

The vice of Mr. Shipman's logic is that he considers abstractions as facts, and treats them as if they were things. Hence his error that existence in general, like a metaphysical essence, is supposed to be something outside of, and distinct from, the manifestations of existence. No wonder that it appears to him incomprehensible.

THE UNANSWERABLE RIDDLE.

Insolvable problems, such as squaring the circle, are problems that are wrongly stated. The problem to construct a plane equilateral triangle, the angles of which are all right angles, is such an insolvable problem. It is insolvable, because it contains contradictory demands of which the one is inconsistent with the other. Both cannot be realized at the same time. Insolvable problems are illegitimate; they are based upon errors; they are errors. Is the existence of errors, or of inconsistent and unrealizable demands any evidence of agnosticism? Mr. Shipman strangely enough affirms that it is.

Hebbel tells a story about a company on a steamer, in which,

for the sake of pastime, riddles were proposed. Every one who guessed right received a sixpence from and every one who had to give up had to pay the same amount to the person who had proposed the riddle. A poor Jew, Hebbel tells us, had made good guesses and thus earned several sixpences. When his turn came he asked: "How can you put three fishes in three pans, so as to have two fishes in each pan, and none left?" Everyone of the passengers had to give it up, and paid his sixpence. After the smart Jew had collected the money all round, he was urged to give his solution, and he said: "I don't know it myself; here is my sixpence!"

The insolvability of illegitimate problems is the argument with which Mr. Shipman confidently imagines he refutes positive philosophy, and this is the shaky ground upon which agnosticism stands. Agnosticism has wrongly formulated the philosophic problem and consequently finds it as insolvable as the Jew's riddle.

The agnostic plays with his own errors as the kitten does with its tail. He moves in a vicious circle; regarding the fallacies of his own argument, which make the world incomprehensible to him, as proofs that the world is really incomprehensible.

What we demand of a philosophy is not a confounding of all issues, so that we are hopelessly benighted by our own confusion; what we demand is clearness, exactness, and discrimination; positive issues and positive answers!

P. C.

THE PESSIMIST'S VISION.

BY CONSTANCE C. W. NADEN.

I DREAMED, and saw a modern Hell, more dread
Than Dante's pageant; not with gloom and glare,
But all new forms of madness and despair
Filled it with complex tortures, some Earth-bred,
Some born in Hell; eternally full fed,
Ghosts of all foul disease-germs thronged the air;
And as with trembling feet I entered there,
A Demon barred the way, and mocking said—

"Through our dim vales and gulfs thou needs not rove;
From thine own Earth and from its happiest lot
Thy lust for pain may draw full nourishment,
With poignant spice of passion; knowest thou not
Fiends wed for hate as mortals wed for love
Yet find not much more anguish? Be content."

BOOK REVIEWS.

PROBLEMS OF THE FUTURE, AND ESSAYS. By S. LAING. London: 1889. Chapman and Hall.

This is a useful and interesting book. It contains not the original theories of the author himself but rather a criticism and comparison of current speculations, dogmas, and opinions. It is written in a sceptical spirit but is none the worse for that. This is a critical age, and any views on any subject which are afraid of the hot crucible deserve suspicion.

Mr. Laing has done for us what few of us are able to do for ourselves; he has gathered the opinions of the great authorities on the "Problems," and compared them. It would take the ordinary reader a very long time to find out for himself what has been presented to him here in easy and interesting lessons.

The subjects treated of are scientific, social, political, and religious, beginning with the problem of "Solar Heat," and ending with that ominous and eternal puzzle about "Population and Food." From a comparison of the numerous guesses made by men of science as to the heat of the sun, and what causes it, the author passes to a discussion of "What the Universe is Made of," the laws of "Climate," the Time and Duration of the "Glacial Period,"

the evidence for the existence of the "Tertiary Man," and the place of the "Missing Link."

Passing from the physical sciences, Mr. Laing explains the "Religion of the Future," and compares "Agnosticism and Christianity," much to the disadvantage of the latter; then he analyzes the "Historical Element in the Gospels," and pronounces it worthless. After that come essays on "Scepticism and Pessimism," "Creeds of the great Poets," "Armed Europe," "Taxation and Finance," closing with a study of the food question, the most urgent and troublesome of all.

This is a wide range of subjects, and we ought not to expect Mr. Laing to handle them all equally well. He modestly says that the advanced student of science will find little in the book which he does not already know, but it is written for that large and increasing class, who have already acquired some elementary ideas of science and who desire to know more. To this class the book will be of great assistance.

Leaving the interesting speculations about the heat of the sun and what the universe is made of, as problems of the future, we refer for a moment to the political, social, and religious questions discussed by Mr. Laing; for these are problems of the present, and some of them are very impatient for solution.

In his plea for Agnosticism as the true solution of the great religious problem, Mr. Laing makes the range of inquiry end at the threshold of the "Unknowable." But he has no more right to limit our investigations than the churches have. The human mind refuses to be imprisoned by the Dorknowstics who declare that on this point nothing can be known, or by the Doknowstics, who tell us that on that same subject all is known, and that further investigation of it is a sin.

Mr. Laing is willing to compromise, and make things pleasant, by grafting grapes on thorns, and calling the curious hybrid "Agnostic Christianity." Christianity is a miraculous religion, or it is nothing, and it cannot be blended with Agnosticism. Christianity will not be coaxed into the arrangement by the seductive contradiction that "Agnosticism comes in as a powerful auxiliary to those emotions and aspirations which constitute what is called religion." It is not to be wheedled into partnership, by the assurance that "Agnosticism is the best of all arguments against Atheism and Materialism." It is very friendly and patronising in Mr. Laing to say to the churches, "May we not all shake hands in the near future and be Christian Agnostics?" He will discover that the churches will not shake. They give the band of religious fellowship to believers only.

Mr. Laing does not estimate great men with wise discrimination, and in his Hero-worship he is rather inclined to gush and glorify. Desiring to make up a quartette of great men in the domain of statesmanship and government, he finds them in Gladstone, Bismarck, Abraham Lincoln, and—Mr. Parnell. Of Mr. Lincoln's mental stature he has no conception, and he patronizes him in exasperating commonplace.

Mr. Laing's reflections on "Armed Europe" are excellent, and well supported by the facts of the situation. They almost make us despair of either disarmament or peace. Mr. Laing throws upon France the responsibility for this unhappy state of affairs, and he supports his accusation with convincing reasons. He sums up by saying, "No general disarmament is possible, unless France sets the example." As France will do nothing of the kind, all Europe, and especially Germany, must continue armed.

M. M. T.

ORIGIN AND FORMATION OF THE HEBREW SCRIPTURES. Reciting when, where, under what circumstances, for what purpose and by whom they were written, as obtained from the writings of that eminent Persian nobleman and historian Nehemiah, who was appointed Governor of Palestine, B. C. 445. . . .

With an appendix containing prophecy sustained in the histories of Egypt, Assyria, and Babylon; and a review of radical views of the Bible. By *Lorenzo Burge*. Boston: Lee & Shepard. Chicago: A. C. McClurg & Co.

Judging from the exhaustive and encyclopædic title of this work one would expect to meet a voluminous and ponderous treatise. But not so. It is a small, typographically modest, and well-printed little volume of one hundred and thirty two pages.

Mr. Burge's history of the origin and formation of the Hebrew Scriptures is, so he himself says, "until now unknown"; his account is taken wholly from the pages of the Bible; and he marvels that it has so long escaped the eye of critical research. But as a matter of fact, far from being "until now unknown," the evidence Mr. Burge adduces in support of his theory is the common property of every Biblical student.

The author's position is that the most important part of the Old Testament was written and compiled by one person, and that that person was Nehemiah. To sustain so important an assertion we confess we think that more material should have been alleged, the sources more critically examined, and the investigation conducted less dogmatically. Not that we care very much whether Nehemiah or somebody else wrote "the most important part of the Old Testament"—for that work will lose none of its value, whoever its author. Nor do we condemn Mr. Burge's praiseworthy attitude with regard to his contention that the Old Testament is subject of criticism (though why not, then, the New?). We protest merely against confident assertions on insufficient grounds. *usque*.

St. Nicholas for this month opens with a Central African story by "One of Stanley's Pioneer Officers," Mr. E. J. Glave.

A Volapük magazine is published in St. Louis (314 Locust street). It bears the uncommon name of *Gesetz Beweithet*.

"The Begum's Daughter" is still running in the *Atlantic*. To the April number James B. Thayer contributes an interesting article on "Trial by Jury of Things Supernatural."

The *Cosmopolitan* seems to have hit the happy mean of modern illustrated magazine work. Its articles are popular and short, and deal with subjects of universal interest and great variety. Its success seems assured.

The Current Literature Publishing Company of New York will issue this month a new periodical, to be called *Short Stories: A Monthly Magazine of Select Fiction*. It will cost twenty-five cents and contain twenty-five short stories.

Dr. Martineau's forthcoming book, "*The Seat of Authority in Religion*," will be published almost immediately by Longmans, Green & Co. The work is addressed not to philosophers or scholars, but to educated persons interested in the results of modern knowledge.

The *True Commonwealth* is the name of a new sixteen page monthly periodical published in Washington, D. C. It is a magazine of reform, which latter means in the opinion of its editors a modified nationalism—somewhat similar to that of the public departments of Germany—and the abolition of monopolies.

The April *Scribner's* contains a beautiful frontispiece by J. R. Weguelin and Henry Wolf, "Now Chaplets Bind"—an accompaniment to Archdeacon Wrangham's translation of Horace's Ode to Sestius (Bk. I, IV). This is the first of a series of illustrations by the same artists for selected Odes of Horace.

Dr. Charcot writes in the April *Forum* upon "Hypnotism and Crime"; Mr. Richard Hodgson on "Truth and Fraud in Spiritualism"; and Dr. Lyman Abbott on "No Theology and New Theology." The *Forum* in turning its attention to these and kindred topics has shown a deep insight into the needs of the time.

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AMERICAN NOTES AND QUERIES.

A WEEKLY PERIODICAL.

W. H. GARRISON, Editor.

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A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

No. 137. (VOL. IV.—7.)

CHICAGO, APRIL 10, 1890

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NEW WINE IN OLD BOTTLES.

CHRIST said: "No man soweth a piece of new cloth on an old garment: else the new piece that filleth it up taketh away from the old and the rent is made worse. And no man putteth new wine into old bottles, else the new wine doth burst the bottles, and the wine is spilled and the bottles will be marred; but new wine must be put into new bottles."

What Christ's meaning was when he spoke these words we can hardly guess, for the context in Matthew (ix, 16, 17) as well as in Mark (ii, 21, 22) appears to be corrupted. Christ, as reported in these passages, said these words in answer to the question: "Why do we and the Pharisees fast oft, but thy disciples fast not?" This part of Christ's answer does not fit to the question. But, whatever Christ meant, it is certain that, if these allegories mean the renewal of old ideas, the rejuvenescence of a dying faith, he himself did pour new wine into old bottles. He did not reject the truths of the Old Testament, but he adopted them, he perfected them, he brought out their moral purport, and showed the spirit of their meaning. If the simile is to be interpreted in this sense, evolution is a perpetual repetition of putting new wine into old bottles.

What is the progress of science but a constant remodeling of our scientific conceptions and terms and formulas? What is the progress of national and social life but a constant alteration and improvement of old institutions and laws?

What enormous changes has our conception of God passed through! How great they are is scarcely apparent to us now, at least our orthodox brethren are not much aware of it. It is known to the historian; and we can give an idea of these changes by pointing to the fact that the idea of evil passed through the same phases. The crude anthropomorphism displayed in the history of the idea of the devil is fresher in our minds, and is better preserved in legends.

How often have the orthodox on the one hand, and infidels on the other, declared that if the word God means anything, it means and can mean only some one thing. How often did the former conclude from such a premise that everyone who did not hold their opinion was an atheist, and the latter maintain that this conception being wrong, there was no God at

all. How often was the conception of God changed, and how often had the dogmatic believer to shift his position.

There is a point of strange agreement between the old orthodox believers and their infidel antagonists. Believers, as a rule, declare that religion means nothing, unless it means the worship of a supernatural divine personality; and atheists, accepting the latter definition of religion, conclude that religion, therefore, should be rejected as a superstition.

This agreement between believers and infidels is at first startling. In my childhood I sided with the former, in my youth with the latter; but, when I became a man, I freed myself from the narrowness of both. I now know that some errors they have in common.

Opponents have always something in common, else they could not be antagonistic to one another. Thus the orthodox believer and the infidel disbeliever stand upon the same ground, and this ground is their common error. The infidel speaker on the platform, appears to me, in principle as well as in method, like an inverted orthodox clergyman. He agrees with his adversaries in the principle—and he always falls back upon the dogmatic assertion—that there is no one who can know: no one who can solve the religious problem, no one who can prove or disprove whether there is a God and an immortality of the soul or not. But the infidel inverts the argument of the orthodox believer. While the latter argues, "I must believe, because I cannot know, I must have faith, because it is beyond the ken of human reason;" the infidel concludes, "because I cannot know, I must *not* believe; and I must reject any solution of the problems of God and the soul because the subject is beyond the ken of human reason."

Weighing the pros and the cons of the question, I became convinced that both parties were one-sided, that, misguided by a narrow definition, both had become so ossified as to allow of no evolution to a higher standpoint. Therefore, I discarded all scruples about using the words Religion, God, and Soul in a new sense, which would be in conformity with science. It was, perhaps, a new path that I was traveling, and there are few that find it, but it is, nevertheless, I am fully convinced, the only true way that leadeth unto life.

The adherents of the new religious conception are in the minority; and there are the theists on the one side, and the agnostics on the other, both uniting their objection to a widening of ideas that have become too narrow for us now, both declaring that old definitions should not be used in a new sense.

Strange! is it not? It seems so, but it is not. The agreement between believers and unbelievers is easily explainable from the law of inertia. The law of inertia holds good in the empire of thought just as much as in the empire of matter.

When Lavoisier discovered that fire was a process of oxidation, he met with much opposition among his co-workers. It was plainly told him that fire, if it meant anything, meant a certain substance, scientifically called phlogisticum; the qualities of which could be perceived by our senses. This phlogisticum, it was maintained, possessed, among other properties, the strange property of a negative weight, and the argument seemed so evident, since all flames tend upwards. If fire meant a mere mode of motion, would not that be equivalent of denying the real existence of fire altogether?

We now all know that the definition and the meaning of the words fire and heat have changed. Neither have the words been discarded, nor have we ceased to believe in the real existence of fire, since we have given up our wrong notion of the materiality of fire. On the contrary, we now know better what fire is, and in what consists the reality of a flame.

Concerning religion let us follow the example of Christ, and break the fetters that antiquated definitions impose upon us. Not the letter giveth life, but the spirit; and let us preserve the spirit of religious truth, if need be, at the sacrifice of the letter, in which the spirit is threatened to be choked.

Christ's words about the new cloth, and the new wine, it seems to me, meant that certain religious institutions, that ceremonies and forms will wear out like old garments, and like old bottles. Antiquated institutions, which have lost their sense, should not be preserved. For instance, the sacrifices of lambs and goats, which were offered by the Jews, as well as by the Greeks and the Romans, were abandoned in Christianity: they had lost their meaning, and Christ's religion would have been an old garment with a new piece of cloth on it, if the old cult had been preserved. Indeed, even the Jews are so much imbued with the new spirit that they have given up their sacrifices forever.

It will be the same with the new religion that is now dawning upon mankind. Some of the old ceremonies have lost their meaning, they will have to be dropped. But the whole purport of religion, the ideal of religion and its mission will not be gone.

Man will always want a guide in life, a moral teacher and instructor. Man must not allow himself to drift about on the ocean of life, he must have something to regulate his conduct. Who shall do that? Shall man follow his natural impulse to get as much pleasure out of his life as he can? Shall he follow science? Or shall he follow religion?

Man might follow science, if every man could become a scientist; and in some sense, this is possible. We can not, all of us, become specialists in the different sciences, but we can, all of us, to some extent become specialists in ethics. What is religion but a popularized system of ethics? And this religion of ethics will be the religion of the future. All of us who aspire after progress, work for the realization of this religion.

Let the religion of the future be a religion of science, let religion not be in conflict with science, but let the science of moral conduct be so popularized that the simplest mind can obey its behests, not only because he knows that disobedience will ruin him, but also because he has learned to appreciate the moral commands, so as to love them, and follow them because he loves them.

THE LOGOS THEORY.

BY LUDWIG NOIRE.

THIS is the designation I wish to give to my theory of the origin of language. Two other designations, the *Sympathy Theory*, and the *Causality Theory*, may, perhaps, also be suitable; but they are incomplete, for they only embrace certain single parts of the entire organic analysis with which we have to deal. The *Logos Theory*, on the contrary, fixes the true centre of gravity of the question at a point where it must be sought for—in the origin of the CONCEPT and in the union of the various contrary things that had to meet and organically combine together, in order that human speech and thought—that greatest of miracles, and pride of creation—might arise and be developed. The Mimetic and Interjectional theories of language are explanations of thought that can be to the taste of such people only as do not think.

I shall set out, in the present disquisition, from a comparison of language with poetry.

Poetry, even at the present day, is virtually a creation of language, that is, a creation of concepts. And, so, too, all primitive creation of language was poetry—lofty, ideal poetry. When, amidst the discordant, noisy, many-voiced choir of utterances indicative of will and sensation, there was heard, for the first time on earth, a sound that conveyed a clear, intelligible sense, an objective meaning, that sound signalized a moment replete with sublimest poetry—for then dawned the sixth day of the creation of the world.

Examining the method of poetical utterance we find

that *external* acts upon *external*. This relation, which is one of *cause* and *effect*, is the fundamental rule of all our cognition and conception of the perceptible world. Everything must be referred to this principle, through it all must be expressed, without it no utterance is possible. In all the following instances, therefore, it must be tacitly assumed; because, manifestly, whatever is internal as regards speech and thinking, actually exists only when it attains to expression, that is, when an external phenomenon is offered that strikes the senses. This first category, accordingly, is distinguished from the three following* in this, that here the purely mechanical process is regarded, while the inner factor, the Will, apparently is not taken into account. This is the source of intuitive perception, the highest excellence of all poetry.

Says Horace: "Thou seest how mount Soracte stands forth, white, with a mantle of deep snow—the groaning branches bend beneath its weight—rivers and brooks, rigid with frost, are arrested in their course." All of which is external causality, external alteration, highly characteristic from its contrast to the previous natural state of things, when mount Soracte is clothed in green, when the trees spread forth their branches, and brooks restlessly speed along.

The converse of the last condition is illustrated in the following, German and Latin, parallel form of statement:

"Diffugere nives, redeunt jam gramina campis,
Arboribusq; comae."

"Vom Eise befreit sind Strom und Bäche
Durch des Frühlings holden belebenden Blick."

"Es lacht der Mai,
Der Wald ist frei
Von Relf und Eiszehänge:
Der Schnee ist fort,
Am grünen Ort
Erschallen Lustgesänge."

[The snows have flown, returned is the grass to the fields,
And the foliage to the trees.]

[Released from ice are brook and river
By the quickening glance of the gracious Spring.]

[May laughs in joy
For forest free
Of frost and icy lacings;
The snow is gone,
On the green sward
Resound the joyous carols.]

All these, again, are *external* changes, conceived as causality—the more effective and the more expressive, the stronger the *contrasts* that connect them. In this passage, however, as it ever is in poetry, the internal, the animate, is revealed in utterances like "holden, belebenden Blick," "Es lacht der Mai," "Lustgesänge," and "Vom Eise befreit." Grand and sublime poetical passages frequently owe their beauty to the manifest disproportion between cause and effect,

*The "three following categories" of the chapter of the original from which this extract has been taken, are omitted. They are as follows: the effect of *external* on *internal*; of *internal* on *external*; and of *internal* on *internal*.

wherein a trifling external cause produces some enormous effect, which brightly illuminates and sets in relief the power and might of the author and originator. To this class belongs pre-eminently that celebrated passage: "And God said, Let there be light: and there was light."

The simple word is here the cause. Haydn has musically interpreted the last word of this passage by an endless strain of widely diverging accords, illustrating the immensity of effect in contrast to the simple motive word of command. Händel has expressed the opposite effect in his wonderful work *Israel in Egypt*: "And he commanded the sea. And the sea became dry," by introducing the command as overpowering and omnipotent, while representing the effect pianissimo—the sea humbly obeying. Both composers strove to express the same by opposite methods. Haydn depicts the majesty of the creator by the greatness of the effect; Händel, through the audible diminution of the result, that nevertheless is conceived as immense.

Here belongs also that sublime passage in Homer, in which Zeus, by the mere movement of his dark eye brows, and by a nod of the head, causes great Olympus to tremble—a passage, the beauties of which three Roman poets have imitated:—

HORACE: *Cuncta supercilii momentis.*

VIRGIL: *Annuit et totum natu tremefecit Olympum.*

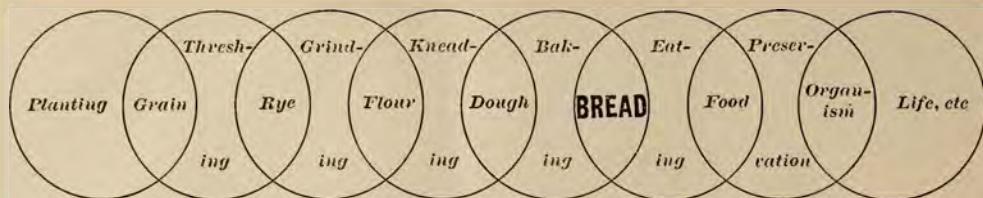
OVID: *Concussit terque quaterque*

Cosarum cum qua terras, mare, sidera movit.

Here, in order that the soul may vividly apprehend the overpowering might of the thunderer, a mechanical effect is throughout to be assumed,—the effect of external upon external,—while I certainly do not deny, that in the humbly obedient sea we may also assume an ethical effect, and, at the same time, a mythological manner of expression. Here is portrayed the living God, who has created all things, whose voice, therefore, is listened to with trembling and awe, and is forthwith obeyed by every created being.

* * *

What the Logos is, how many contrarieties it must reconcile, in order to become what its name purports, will have been revealed from my work. Independence, the self-dependent existence of our percepts, by their having assumed in the mind definite lines of demarcation, and by their having been placed at the disposal of the intellect in that they may be summoned forth at any time by the word and the general concept—such is the highest achievement of the Logos. With this performance the Logos entered into existence. This character of combining and distinguishing it still preserves in all its functions, as from the beginning so to the present day, when infinitely complicated mental operations are performed with instinct-



ive certainty and lightning rapidity, so that it seems almost impossible to follow the paths of the individual threads. For the sake of greater clearness I shall at tempt to show, by means of the accompanying cut, what elements of thought of a simpler order, and likewise concepts, may be contained in a single concept, and how through the reciprocal interaction of these concepts and of the percepts which they control, a concatenation of ideas converges in that concept, and likewise again radiates from it. The concept BREAD is chosen. In our cut the concept is developed genetically towards the left side, and teleologically towards the right. From the left and right extremities, respectively, the concept becomes ever more special, that is, it takes in more definitions; radiating from the middle, it passes into ever more general concepts, that by reason of their more general character can be collectively predicated of the notion BREAD, or be referred to the same.

By an illustration of this kind it can be graphically shown, how ideas may represent for man the rôle of things real; how man has acquired the power of combining in his representative faculty the most remote objects, and thereby has been able to accomplish the great miracles of human industry and commerce. But all this would be utterly inconceivable without concepts, which impart to percepts their unity and self-dependence, bring about and multiply their rational connection. Hence also, no animal can ever advance a single step beyond *present* perceptive representation, can never escape from the constraint with which Nature circumscribes the narrow sphere of its wants. Unfortunately, however, in apparent contravention of this rule, ants to the present day carry on a regular and methodical species of agriculture, keep live-stock and domestics like we! Nay, they have been caught in conversations and social entertainments of a quarter of an hour's duration—Heaven save the mark!

The perception of *causality subsisting between things!* Verily, this constitutes such a simple, plain, and at the same time, such an obvious and convincing distinction of the Logos, of human reason, from all animal intelligence, that it seems inconceivable how this manifest and clear boundary-line should not long ago have been noted and established as such. For this causality to be grasped by the mind, one of the two causal mem-

bers must at the start necessarily have existed as *percept*, as *representation* only, and the connection with the others been effected by thinking, that is through the concept. In "dug here" the present aspect of the phenomenon refers to a past activity as *cause*; in "thing for digging" reference is made to a future activity as *aim*. In both cases *two* representations or percepts must be simultaneously *present*—the one accordingly, only by *representation*; this, however, is to be attained only through the concept, the word. Therefore, man only, and the animal never, will be found in the possession of tools.

The *acts* of cognizant man, by virtue of the percepts that illuminate consciousness, seem to be connected with one another, that is governed by an inner necessity. Yet who could remain blind to the truth, that the series of percepts connected with the will and arranged by close relations with regard to the same, must have been the most natural, the most primitive of all? that *practical* thinking, if I may use this expression—that is, thinking constantly guided by interest and founded on the subjective basis of will—must alone and exclusively be placed at the beginning, as it even to-day certainly forms the life-material of the majority of men? The emancipation of our thought from our desires and wants constitutes every advance towards theoretical knowledge, and it certainly follows thence, that originally thought was wholly coalesced with will; that percepts, accordingly, in the consciousness of primitive men, were not arranged in any causal, genetic, and intellectual connection, but simply disposed in the order in which by reason of instinctive impulses and emotions they had entered into their various incidental or natural connections. The will for a long time remained absolute autocrat; all speech aimed at practical effects, sympathetical agreement, and incitation to common action. From the earliest instinctive utterances of will, which in the shape of sounds directly and simultaneously uttered by a body of men encouraged to the primitive acts of digging, plaiting, etc., to the kindling eloquence of a popular orator who fired the souls of men with martial enthusiasm, by his vivid picture of desecrated graves and temples, of cities laid waste, of women and children dragged away into captivity—throughout the same law unceasingly operates, the action of will upon will through the *sym-*

pathetic frame of mind and its attendant percepts. Everywhere we find imitation, everywhere will, everywhere activity. And for this reason my theory, which upon this very basis erects all else there is, has justly received the name of the *Sympathy Theory*.

We see the active causality of our will produce effects, and, as it were in a dream, create forms that upon being taken up by the senses (passive causality), are converted into percepts, and then as the reflected activity of volition again enter our consciousness. This, however, is not a successive series, although it may appear to us as such, but actual simultaneousness, *unity*, the essence of causality and reason. One of the most important aspects of my theory is therefore aptly expressed by the designation *Causality Theory*.

But the most important element is still lacking—the *free*, regular, and well-arranged combination of the percepts, as entirely guided and irradiated by the light of cognition, in a word the *Logos*. For, notwithstanding all unity of causality in the cases hitherto exhibited, the percept still strongly cleaves to will, sensation, and direct-sensory intuition. To release it (the percept) from this bondage of coarse, empirical reality, to elevate it irrevocably into the ideal sphere in which with perfect mental freedom it can enter into innumerable other combinations—to achieve this miracle, causality must emancipate itself, and become a powerful and ever ready instrument of the human mind.

Causality gained freedom only with the rise of concepts and words. The oldest words, *dig*, *plait*, *bind*, *separate*, have no other content than that of causal relation—the connection of two sensually perceptible percepts that constitute their causal members, the *Logos*.

The causal relation contained in all concepts and words, that is their verbal fluidity, which has its true basis in the fact of its derivation from activity, taken together with the substantiality of the percepts themselves, renders possible their union and junction with one another. In this manner words and concepts are brought together into unity in the human *judgment*, and therewith we have reached abstract thought, and its ultimate principle, the 'ground of cognition,' representing the second class in the Schopenhauerian distribution. But all judgments, of whatever kind they may be, have as their final condition merely intuitive percepts from which they proceed, to which they redescend from their abstract altitude, and with reference to which, perforce, they must find their application.

The joinder of percepts with percepts, of concepts with concepts, of judgments with judgments constitutes, accordingly, the essential character of thought. But all this is *Logos*, and, consequently, my theory of language is most fittingly and properly designated the *Logos Theory*.

THE SUGGESTIBILITY OF CROWDS.

THE intelligence of an aggregate of people represents by no means the sum of their intellectual ability, but only their average capacity; and if we could get the exact measure of the understanding of crowds, we would find that in most cases, it does not even reach the average. One reason for this deficit in the intelligence of masses of people will be found in the fact that nobody, if seriously taken to task, cares to identify himself with the whole crowd. Thus many help to give expression to an opinion for which they do not feel a personal responsibility.

Great masses of people are for several reasons extremely suggestible. First, great masses are likely to be composed of many men below the average of education, and people who are in possession of little knowledge are easily influenced by any opinion that is offered with great self-assertion. A lack of knowledge is always accompanied with a lack of critical power. Thus, secondly, great masses are not likely to show much opposition to new ideas, unless a new idea directly and unequivocally threatens some one of their firmly established prejudices. Thirdly, even where great masses consist of learned men, of professors, doctors, or other people who are generally accustomed to think independently, it is not likely that the majority is thoroughly familiar with that line of thought in which the speaker's argument moves. They may have been partly indifferent to the subject before he commences to speak; or if they chanced to be interested in the subject, they had not as yet formed an opinion of their own. An opinion is now presented to them ready made, and the simplest thing in the world is to accept that opinion just as it is offered.

Schiller in one of his *Xenions* expresses a similar idea; he says of some board of trustworthy men:

"Every one of them, singly considered, is sensible, doubtless,
But in a body they all act and behave like an ass."

Large bodies are always more likely to make mistakes than single individuals. Many cooks spoil the broth; not only because there are too many opinions, but also because if they form one mass, all their knowledge together does not make up the sum but the mere average of their wisdom.

As a means of bringing the combined intelligence of a number of persons to bear on a special point, rules of discussion have been invented which make it possible for every opinion to be heard before the association as a whole decides upon the acceptance of a special idea or plan of action. And this is the only way any meeting can be conducted in which the critical power of the individual members is not to be suppressed, but the minds of all are allowed to co-operate.

There is a special art of suggesting ideas to large masses and we call it oratory. The art is very valuable; and most valuable is it in a republic. It can be used for good and for evil purposes. An orator may suggest base ideas perhaps, with the same cleverness as noble aspirations.

We shall explain the different methods employed, for two reasons: first, to shed light upon the art of oratory as a method of suggestion for its practical use in serving honest and legitimate purposes; and, secondly, to guard against the tricks of impostors, who know how to gain the ears of an audience and lead their hearers astray.

A suggester of ideas, i. e., an orator (be he teacher, attorney at law, preacher, or drummer—the latter has generally to be an orator to two ears only) must always speak in the language of his audience; viz., his pupils, his clients or the jury, his congregation, his customer. He has—to use the expression of Experimental Psychology—to adapt himself to his "subject." It is useless to talk Greek to an audience of farmers and it would be absurd to speak in stilted phrases to a crowd of sailors. The orator must place himself on the same level with the intellect of his subject; he must find a common ground from which he may start; therefore it is advisable to introduce first ideas that are familiar. These first ideas being admitted as old friends, he can gradually introduce others. Stump orators who flourish and operate among the vulgar classes find it most convenient to gain entrance by flattery. An honest man whose ideas will speak for themselves need not stoop to such means. A drummer whose goods are worthless, commences to praise the taste of his subject and adds that everybody of good taste gives the preference to his merchandise. A wirepuller in a political campaign extols the intelligence of the American nation until everyone of his audience feels elated and proud of being so intelligent. Then he ventures one step further, declaring that no one but a fool can believe in principles such as those of the other party.

The communication of ideas is an art. Yet the subjects to whom ideas are communicated should understand the mechanical laws of that art. Knowledge is a preservative, a protection against evil suggestions, because it affords a means to discriminate between good and evil.

An excellent example of the method how under most difficult circumstances certain ideas can be suggested to a mass of people that are not willing to accept them, is the famous scene on the Roman forum in Shakespeare's *Julius Cæsar*. Brutus is demanded to give an account of the murder of Cæsar, and he justifies himself to the general satisfaction of his audience. "Who is here so base," he asks, "that would be a bondman?" Of course, every one wants to be a free

man, a Roman citizen. To the question "Why Brutus rose against Cæsar?" he answers: "Not that I loved Cæsar less, but that I loved Rome more. . . . As Cæsar loved me, I weep for him; as he was fortunate, I rejoice at it; as he was valiant, I honor him; but as he was ambitious, I slew him."

Brutus's oratory is natural and it is grand in its simplicity. Its fallacies are believed in by himself. He committed a noble crime when he stabbed his fatherly friend; and his speech is convincing because it shows the nobility of his motive.

Mark Antony has a more difficult position; he is looked upon as the defendant of an ambitious tyrant, and it appears as specially objectionable to say anything derogatory of such honest men as Brutus, Cassius, and the other conspirators. He therefore, declares it his intention only to perform the burial, which none of the proud and free Roman citizens would deny the meanest man in Italy. He praises the honesty of Brutus and the conspirators, by whose kind permission he is allowed to speak. Here is the trick of his oratory, and Mark Antony is fully conscious of it. He does not start from a common ground; but he starts from an idea strongly supported by his hearers, which is the very same idea that he is about to give battle to, and to destroy. Mark Antony is open to the charge of equivocation. He is not honest and square like Brutus. He deliberately and cautiously instills one drop of venom after another into the souls of his "subjects" until they are full to the brim and cry for vengeance on the murderers of Cæsar. It is true he prosecutes a criminal, and the criminal ought to be punished. But his prosecution is not dictated by the love of justice but by the desires of a robber to deprive his successful brother-robbers of their spoil. After having stirred the free citizens, the proud Romans and masters of the world into a furious excitement, he says:

"Now let it work. Mischief, thou art afoot,
Take thou what course thou wilt."

This masterpiece of Shakespeare's dramatic genius faithfully depicts the type of crowds. The conquerors of the world had in Cæsar's time ceased to be free men, they lacked the backbone of the contemporaries of the Scipios, of a Cincinnatus, and of a Fabricius. They allowed their sympathies and their votes to be turned by any demagogue in whatever direction he pleased, all the while imagining that they were free men, and that they acted of their own accord. If the citizens of a republic cease to be independent, if they are of a suggestible nature, they are not worth their freedom, and they will become the prey of unscrupulous wirepullers, or their government will soon cease to be a republic.

There is a lesson for America! Our politicians

even to-day use the basest flattery. They tell us that we are the greatest and most intelligent nation; we are wise and independent. Having hypnotized their audience with such cheap and vile phrases, they instill their suggestions into the souls of the brave and the free with impunity.

Let every American citizen be wary. Whenever a stump-speaker begins to flatter, be on your guard, for it is almost certain that he is about to deceive you. Our people should do less shouting and more thinking in election campaigns, and every single individual who attends a meeting should feel himself responsible for the expressions of indignation or enthusiasm of the whole assembly.

A republic needs independent citizens, quick in comprehension, but slow in judgment, and tenacious in that which they have recognized as right. Every honest thinker must endeavor to counteract the suggestibility of the masses by the proper education of our people.

SENTIMENTAL ARGUMENTS.

One of the most effective methods of suggesting ideas, or plans, or propositions, is the employment of sentimental arguments. The results of a certain action is described, and the suggester (be he orator, or author, or politician, or demagogue, or preacher, or teacher, or a fantastic dreamer) dwells at length upon the details of his description, taking for granted that these must be the natural consequences of his scheme. He excites the sentiment, the sympathy, the hopes and fears of his "subject." And his subject whose critical powers are lulled asleep under the influence of some delightful dream, becomes an enthusiast for his scheme. Being anxious about the result, he forgets to examine whether the proposed scheme really leads to that result; and if he really makes an attempt to examine the validity and soundness of the plan, he has, in the meantime, become so infatuated and intoxicated with the beautiful vision depicted to him, that he has ceased to be impartial; he is no longer unbiased, and has become unable to examine the issue without a prejudice.

Sentimental arguments are dangerous, because they come to us like friends: they appear most innocent and harmless in sheep's clothes. The fleece of a sheep may hide a wolf or a real sheep, and which of the two would be the worse is sometimes difficult to tell. Ideas comparable to wolves make the man in whose brain they dwell, appear most dangerous, but those ideas that resemble the ovine species, I am inclined to regard as the greatest of all evils, for the heads in which they live and for society also.

A man whose opinion is founded upon sentimental arguments usually considers those fellow-mortals of his

who are of a different opinion as rascals, for men who oppose this or that pet scheme must have, so it appears, a different sentiment. They seem to stand in opposition to the result of the scheme, and thus they must be, and are often declared to be, villainous rogues.

The fallacy of a sentimental logic is apparent to every clear-minded person, and we must accordingly be on our guard against it. Every man should make it a rule for his thinking, never to form an opinion on mere sentimental grounds.

INSINUATION AND SUGGESTION.

The most insidious method of hypnotizers is what we may call "suggestion by insinuation." For instance: The hypnotizer introduces his ideas by hints rather than by a direct communication. He puts a question which implies the supposition of a certain fact. And the unwary 'subject,' while bothering about an answer, gets accustomed to the fictitious fact; his imagination is set at work to depict certain details of the occurrence. Amid these details, worked out in his imagination, he forgets the main thing: namely, to investigate whether the fact is true itself. His account of the event is now based upon a fact. This fact is the memory of his imagination. The idea of such an event has become by insinuation a reality in his brain, he remembers it plainly, and being unable to discriminate between the memory of a real experience and a common report of an occurrence, he will, in best faith, take an oath upon the truth of his statement.

How dangerous suggestibility by insinuation is, our lawyers have ample opportunity to ascertain. From my own experience I know of a case where, in a trial for alleged murder, a Polish woman presented, upon the questions proposed, her evidence against the defendant in such a way that her whole testimony became a tangle of improbable and impossible statements. It was a dream, incidentally suggested in preliminary examinations by questions which intimated to her how it might have been. Her vivid imagination made her suppositions appear to her as real happenings, and in court she gave her evidence on oath.

There were questions like these.

"What time was it?"

"It was half past four in the morning."

"Did you not yesterday say it was a quarter to seven?"

"No, I did not. I said it was exactly half past four."

In a preliminary examination she had said it was a quarter to seven, but in the meantime it had become manifest, that if it had been a quarter to seven all her testimony would be irrelevant.

"How do you know that it was exactly half past four?"

"When I saw this man, I looked at the clock to see what time it was, and the clock was exactly half past four."

It was not difficult to prove that from the window at which she was, it was impossible to see the spot where she fancied to have seen the man against whom she gave evidence. So it must have been a case of self-suggestion.

The worst insinuations are those devised from personal malice. Some villain, for instance, writes a letter to a man with the intention to throw suspicion upon his character. The tone of the letter is friendly; he writes with a pretense of kindness and frankness, yet among the sentences there are phrases like this: "You showed some anxiety about the matter and I am glad that I can be of service to you." Thus a statement is introduced together with an insinuation that the person addressed had some reason to be anxious about it. Whether this is true or not, the letter if read by others, or if perhaps later on presented in court, will throw suspicion upon the person addressed.

The method of insinuation is the more surreptitious, the more trivial the details are that are introduced in connection therewith. The details may be true, while the fact insinuated is perhaps absolutely false. If the truth of the details can be proved, the insinuation is most likely to find credit.

Villains who employ such means are liable to do great harm. There is one antidote only against the refined venom of such knaves, and that is independence of judgment. A man who is able to discriminate between true facts that are proved, and fictitious facts that are insinuated, will be able to see through the schemes of a trickster, and take his statements for exactly what they are—insinuations. They are not proved simply by being suggested, but require to be proved; and if they can be proved to be false they are evidences of villany.

* * *

The lesson of this is that Psychology is a study too much neglected; it is indispensable for every one who has to deal with people; and who has not? the physician, the clergyman, the employer of labor, the officer in the army, the professor, the merchant, the banker, almost every one has to deal with people, and, above all, the lawyer. Self-knowledge is not sufficient to make us free, it must be self-knowledge and the knowledge of other people; it must be self-knowledge in the broadest sense, knowledge of the soul, of the motives that work upon, and can be employed to affect, man's sentiments. It is only knowledge that can make us free; and knowledge will make us free. And because it makes us free, knowledge, and chiefly so psychological knowledge, is power.

P. C.

MAX MÜLLER ON PHYSICAL RELIGION.*

THE SECOND COURSE OF GIFFORD LECTURES AT GLASGOW UNIVERSITY.

I

NATURAL Religion manifested itself under three different aspects, according as its object, or what is called the Divine, is discovered either in nature, or in man, or in the self.

The Infinite has been discovered, not only behind the phenomena of nature, but likewise behind man, taking man as an objective reality, and as the representative of all that we comprehend under the name of mankind. Something not merely human or something superhuman, was discovered at a very early time in parents and ancestors, particularly after they had departed this life. This sphere of thought might be comprehended under the name of anthropological religion.

The psychological sphere of religious thought was filled with endeavors to discover what lies hidden in man, considered not merely as a creature, or as a part of nature, but as a self-conscious subject. That self of which man became conscious, as different from his merely phenomenal or even his personal being, had been called by many names in the different languages of the world. It was called breath, spirit, ghost, soul, mind, genius, and many more names, which constitute a sort of psychological mythology, full of interest to the student of religion, as well as to the student of language and thought. It was afterwards called the *Ego*, or the *person*, but even these names did not satisfy man as he became more and more conscious of a higher self. At last the consciousness of self arose from out the clouds of psychological mythology, and became the consciousness of the Infinite or the Divine within us; the individual self found itself again in the Divine self—not absorbed in it, but hidden in it, and at one with it by a half-human and half-divine sonship. The earliest name for the Infinite as discovered by man within himself, was found in the ancient Upanishads. There it was called *Atma*, self, or the self, that lies behind, looking and longing for the Highest Self—and yet it is not far from every one of us. Socrates knew the same self, but he called it *Daimonion*, the indwelling God. The early Christian philosophers called it the Holy Ghost, a name which has received many interpretations and misinterpretations in different schools of theology, but which ought to become again what it was meant for in the beginning, the spirit which unites all that is holy within man with the Holy of Holies or the Infinite behind the veil of the *Ego*, or of the merely personal and phenomenal self.

It must not be supposed that the three phases of

*From a report in the London *Christian World*, copies of which were kindly sent us by Prof. F. Max Müller.

natural religion, the physical, the anthropological, and the psychological, existed each by themselves, that one race worshipped the powers of nature only, while another venerated the spirits of human ancestors, and the third meditated on the Divine, as discovered in the deepest depth of the human heart. Nor did history lend any support to the theory that physical religion everywhere came first, and was succeeded by anthropological, and lastly by psychological religion. All that could be said was that in different countries and among different nations sometimes the one, sometimes the other phase of religion became more prominent, though seldom was any religion met with which did not contain the germs of all.

The ancient Vedic religion was pre-eminently a physical religion, but to maintain, as some philosophers had done, that it contained no traces of ancestor-worship, shows simply an ignorance of facts. Even the third phase, the psychological, that in its fully elaborated form belongs to a later age and assumes the character of a philosophy rather than of a religion, was never entirely absent in any religion. The very recognition of superior beings implied some kind of perception of man's own being, some recognition of what really constituted his own self. Though these three roads were found, on which a belief in the Infinite was reached by different nations, running closely parallel, or even crossing each other, yet it was almost indispensable that each should be explored by itself. At present we shall devote ourselves to a study of physical religion.

There is but one method of carrying out that exploration—the historical. We must try to discover the historical vestiges of that long pilgrimage which the human race had performed, not once, but many times, in search of what lies beyond the horizon of our senses, in search of the Infinite, in search of a true religion; and this the enquirer could only achieve by a careful study of all truly historical documents in which that pilgrimage had been recorded. There is an unbroken continuity in the religions, as there was in the languages, of the world. We know that the language spoken by Hume and Kant is substantially the same as that which was spoken by the poets of the Veda in India 4,000 years ago. And we see that the problem of causality which occupied the powerful minds of Hume and Kant was substantially the same as that which occupied the earliest framers of Aryan language and Aryan thought. Physical religion owes its origin to the category of causality, or, in other words, to the predicating of roots expressive of agency and causality as applied to the phenomena of nature.

For practical purposes it is best to study the origin and growth of physical religion in one country only, and then to turn our eyes to other countries where the

same ideas, though under varying outward conditions, have found expression in mythology or religion. In no country do we find physical religion in its simplest form so completely developed as in India. Not in India, as it is popularly known, not in modern India, not in mediæval India, not even in the ancient India, as represented in the epic poems of the *Mahabharata* and *Ramayana*, least of all in the India of the Buddhists, whose religion, old as it was—for Buddha died 477 B. C.—was built up on the very ruins of that religion which interests us at present. The pure, original, and intelligible religion of India is to be found in the Vedic period only, which preceded the rise of Buddhism, just as the religion of the Old Testament preceded that of the New. There and there only can we see physical religion in all its fulness, in all its simplicity, in all its necessity. Suppose we knew Christianity only as it appeared after the Council of Nicea, after it had become a state religion, and had once for all settled its dogmas and ceremonial, and then we had suddenly discovered a manuscript of the Gospels—the new insight into the true nature of Christianity would not have been more startling and surprising than has been the new light which the discovery of the Veda throws on the origin and growth of religion, not only in India, but in every part of the world.

The discovery of the Veda laid bare the primitive stratum of language and thought, the very possibility of which had before been so keenly contested. Yet while a study of the Veda was the best preparation for the study of physical religion, it did not claim to teach all that could be known about the gods of nature. If historians called the Veda primitive, they meant that it was more primitive than any other literary work they were acquainted with, and that it contained many thoughts which required no antecedents. But it would be the greatest mistake to imagine that everything in the Veda was primitive, intelligible, or without antecedents. The collection of hymns which scholars chiefly meant when they spoke of the Veda in general, was a collection of various collections, and in each of them there were relics of different ages, mixed up together. They had to search carefully for what was really primary in thought, for the later rubbish was much more abundant than the original gold. And yet, for all that, they possessed in the whole world no literary relics intellectually older than the oldest hymns of the Rig-Veda, and I doubt whether we possess any literary relics chronologically older, at all events in their own, the Aryan world.

The Veda has become the foundation of all linguistic, mythological, and religious studies. The accents of the Veda supplied our philologists with the final explanation of the minutest changes of vowels in Greek, and even in English. The names of Greek and

Roman gods and goddesses found their explanation in the common phraseology of the Vedic Rishis; and religion itself, which seemed to some scholars so irrational and unnatural a creation 'that it could have been invented by one man only, and he probably a madman,' assumed a character so perfectly natural and rational that they might boldly call it an inevitable phase in the growth of the human mind.

A JOURNALIST'S CONFESSION. BOSTON, A. D., 2001.

[COMMUNICATED THROUGH DYER D. LUM.]

You will be surprised, my dear Dr. Leete, to learn that I have severed my connection with the "Trumpet of Liberty," but such is the fact. Your kindness in the past, your earnest zeal in laboring to secure sufficient subscribers to reimburse the executive power for expense incurred, as well as your unflinching optimism even when circumstances looked dark, all alike convince me that I would be derelict to favors received were I not to lay before you the reasons which have actuated me in this final step. Nor are the reasons purely sentimental, though I know that if I should place them upon that ground I could at once command the tender sympathies of your generous and trusting heart. And if my private criticisms herein as to the wisdom of our mode of conducting newspapers should seem to lean toward *treason*, I can but simply throw myself upon your good nature.

The imperative necessity of first securing enough subscribers to guarantee cost before permission to publish could be obtained, necessarily made the venture in a large degree local. To the circulars sent out the replies from a distance were, as we expected, not very encouraging; the utter lack of advertising, if I may be permitted that antique word, prevented the fact from being widely known, as well as the character and scope of our work, and at the same time deprived us of means to collect names. In fact, my dear doctor, while in no wise depreciating the calm security we now possess of knowing that our material wants will be easily gratified, it still seems to me, but without indorsing Carlyle's allusion to "pig's wash," that this security of the stomach tends to confine our efforts within narrower circles and restrict our intellectual horizon within the boundaries of personal intercourse. Without means to reach unknown inquirers, our work and progress has been largely retarded.

But the "Trumpet," fortunately, having a goodly subscription list, and I being elected editor, these difficulties were surmounted, even if it prevented a material reduction in terms or increase of attractions. But here a greater difficulty arose. You remember the biting sarcasms in works of a former age in which the clergy were assailed for being necessarily subservient to the pews whence arose their support. I fancy I can put myself in the place of a clergyman under those semi-barbarous conditions prevailing before government kindly relieved us of the care of overlooking our own morals. For even under our resplendent liberty, which I have done so much to trumpet, I have found myself continually treading on tender corns and drawing forth indignant protests from my constituency. Our beloved institutions have not fostered criticism; on the contrary, the tendency is plainly toward its repression. Though our presses continually issue books, they, like papers, find great difficulty in reaching beyond a merely local market, which while heightening cost necessarily limits circulation. To write for the "pews" only, so to speak, restricts independence; while independence either curtails my list of readers or changes its personnel, in either case depriving the paper of an assured and solid basis.

To antagonize those within immediate reach, whom every-

thing tends to render extremely conservative toward speculations relative to wider personal liberty, and without means to reach others at a distance to whom such thoughts might be welcome, is but one of the many difficulties I have encountered. Individual initiative having long since gone out of fashion, in the collapse of the ancient system of political economy, it becomes more and more difficult to assert it in the economy of intellect. I am aware that the field of journalism is regarded as exempted from the general rule of authoritative direction and, like the clergy, left to personal merit to win success; still the universal tendency of all our institutions to militant measures and direction largely invalidates the theory. This tendency to centralization, which has become the crowning glory of our civilization, is strikingly manifest even in journalism, despite its theoretical exemption.

The subscribers being, so to speak, stockholders, and persons whose everyday occupations and mode of living tend to disparage individual initiative, the first effect of anything blasphemous to the sacred shrine of the commonplace is the appointment of a committee, or board of directors, by the subscribers whose chief functions consist in promoting solidarity among the enrolled subscribers. Theoretically, I had become convinced that this was the flower of our civilization and frequently elucidated its philosophy at Shawmut College, but my later experience has not led me to be enraptured with its fragrance. Each one, in so far as individuality has survived, to however slight a degree, feels not only competent but authorized to express himself editorially; for those most fervent in presenting the superiority of collective wisdom are equally convinced that they are its organs.

When I accepted the position as editor, I believed that this reservation of journalism from collective control was wise, but what was excluded in theory reappears in practice. If you could but look over the articles I have received from the stockholders whom I represent, the "pews" to whom I preach, you might be tempted to change the name of the paper to the "Scrap Book," or face the problem of reducing material cost without increasing intellectual costiveness. You see my dilemma: if I insert them I am publishing contradictory principles, if I exclude them I am flying in the face of our great and glorious institutions by looking backward to outgrown conditions, wherein some of your semi-barbarous forefathers were wont to prate of the inseparableness of personal initiative and responsibility.

That our social system can be criticised by writers for its compulsory enlistment for three years to secure ample supply for social demand for sewer-ditchers, night scavengers, domestic service, etc., you would undoubtedly agree with me in regarding as only coming from those in whom our beneficent institutions had not eradicated as yet the hereditary taint of being "born tired," a complaint of which we read in some ancient authors. Yet, whatever its source, such criticisms are received, though generally concealed in allegory. Thus, recently, I had to reject a story of considerable literary excellence, wherein was described a fancied society where parity of conditions rendered free competition equitable, and remuneration for work was determined in open market by intensity and degree of repugnance overcome, thus un-socially offering the highest inducements to disagreeable labor. I saw at once the anarchistic character of the work, and promptly suppressed it as treasonous.

I have also come to the conclusion, my dear Dr. Leete, that the newspaper is obsolete. For current gossip and small talk we already have abundant vehicles; for criticism on public polity there is no room, even if there were need, nor would it be wise to tolerate it in a community where individuality is subordinated to general welfare and protection constitutes the genius of all institutions. Our general news we receive officially, all alike, as it is given to us, and the official bulletins meet all demands that may

arise which public safety and morality deem wisdom to publish. Titles of heavier treatises than the ephemeral requirements of newspapers may always be found in the official record of publications distributed among our purchasing agencies, to those who have time to search through their voluminous bulk, and even if a title should prove misleading, a common misfortune for which I can suggest no adequate remedy, our material prosperity is so well assured that credit so wasted will not injure anyone.

Finding, therefore, that our present legally instituted scheme of journalism is incompatible with our social constitution, to preserve which all else must be sacrificed, in that it cannot be successfully conducted without individual initiative, control, and responsibility, I gladly cease the struggle to return to my chair of philosophy of history at Shawmut College. My own opinion is that the collective direction now so simplified over production and exchange in material fabrics, should be logically extended to the production and exchange of the more subtle fabrics of the brain if our glorious institutions are to permanently remain on a solid and immovable basis. To admit anarchy in thought, and insist on artificial regulation of relations which are born of thought, is plainly illogical and dangerous to collective liberty. A social system once instituted must be preserved at all hazards; to preserve is as essential as to create; and this is the more evident when we are the creators and know the result to be to our social well being.

Happily, the compulsory solidarity to which civilization has now attained in material wealth, and the moralization of militancy a century ago, effected by political high-priests, already gives every indication of being dominant in the intellectual sphere before the close of this newly-opened century. Having organized liberty, having brought the spirit of freedom down from abstract heights to add a local habitation to its name, by excluding individual initiative and personal responsibility in economics, having substituted the kind fraternalism of direction for the wild freedom of competition, let us hasten the rapidly nearing day when intellect will also reject these survivals of a ruder age—a day wherein we will reach the culminating point of our civilization, where looking forward will be synonymous with looking backward!

Yours for organized and instituted liberty.

JULIAN WEST.

P. S.—Edith sends love; the baby is well.

J. W.

CORRESPONDENCE.

THE CRADLE OF THE ARYANS.

To the Editor of *The Open Court* :—

PROF. MAX MÜLLER'S article, which appeared in *The Open Court* of February 13th, cannot be suffered to pass without a few words of protest.

His line of argument is hardly ingenuous. In discussing the question of a European or an Asiatic origin of the Aryan race, he selects for attack the Scandinavian hypothesis of Penka, the weakest of all the European theories which have been broached; and when this unfortunate theory has been overwhelmed with easy ridicule, he seems to imagine that the European theory has been demolished. He does not even allude to the most probable Aryan cradle which has hitherto been suggested, the great central plain of Europe, which has secured the suffrages of such weighty authorities as Latham, Benfey, Spiegel, Cuno, Friederich Müller, Von Löber, Lindenschmit, and Tomaschek. Nor is it fair to say that "Latham first started" the Scandinavian theory. Latham never suggested so wild a solution of the problem. He urged that the cradle of the Aryans should rather be sought in the former region of Lithuanian occupancy, extending, as he thought, from the Baltic to the Euxine, and including a portion of the valley of the

Danube; an hypothesis to which Prof. Max Müller's objections do not apply.

Again, he attacks at considerable length, an observation of Prof. Sayce about the birch, which was a mere verbal slip, forthwith corrected, but he leaves unanswered the very cogent argument from the distribution of the birch which Prof. Sayce had actually in his mind, an argument which has induced so cautious a scholar as Dr. Schrader to abandon his former advocacy of an Asiatic cradle for the Aryan race.

Although myself unable to accept Penka's Scandinavian theory, I do not think it will be very greatly damaged by some of the arguments with which Prof. Max Müller assails it. "We know," he says, "of no traces of human life" in Sweden much before the date of the Persian war, i. e., about 500 B. C. Not to speak of the fact that skulls of the present Swedish type are found in ancient graves, which go back, all through the ages of iron and of bronze, far into the neolithic period, it has been calculated by Prof. Steenstrup, the highest authority on the subject, that the accumulation of those vast mounds of refuse called the kitchen middens, which line portions of the Swedish and Danish coasts, must have occupied from 10,000 to 12,000 years. These mounds are of neolithic date, so that in any case the "traces of human life" in Sweden must be extended back for several thousand years beyond the date selected by Prof. Max Müller.

Weak as are Penka's arguments in favor of his Scandinavian hypothesis, they are, at all events, not so weak as those which Prof. Max Müller brings forward in support of his own selection, the lofty and almost uninhabitable plateau of the Pamir, the roof of the world, which he believes to be one of "the highest points in Asia." The argument is as follows: "Geology tells us that the first regions inhabitable by human beings" were the Pamir and the Caucasus. "No geologist would ever think of any part of Europe as inhabited, or inhabitable, at the same period of time as these two highest points of Asia." Leaving this very remarkable statement to be discussed by the geologists, I would venture to suggest that Prof. Max Müller seems to be confusing two things perfectly distinct, namely, the origin of the Aryans, and the origin of the human race. Even if he could prove that the first man first made his appearance on "the roof of the world," and that the Pamir was well peopled when the whole of Europe was, for some unassigned reason, uninhabitable, this very singular fact would have no bearing whatever on the question. For the Professor himself demands no more than 4,000, or at most, 7,000 years for the origin of the Aryan race and the separation of the Aryan languages, a period not one-tenth of that during which, according to the geologists, Dr. Croll and Prof. Geike, for instance, Europe has been the seat of human habitation. The earliest proofs of the existence of man upon the earth, come, not from Babylonia or Egypt, far less from the wild and sparsely peopled wastes of the Pamir, but from Western Europe, which was not only habitable, but actually inhabited as far back as the Pliocene age, before England had become an island by the formation of the Channel, and when the Somme flowed 300 feet above its present level, pouring its waters, mingled with those of the Rhine and the Thames, into some remote northern ocean. We also know that in France and Britain man was the contemporary of the woolly rhinoceros, the mammoth, and the hippopotamus. The "highest points of Asia" must have been covered by the ice-sheet of the last glacial epoch at the time when the mammoth and the reindeer formed the food of palæolithic hunters in Western Europe.

The Egoisheim skull, the Neanderthal skull, the Engis skull, the Canstadt skull, the Olmo skull, the Grenelle skulls, and the Cro-Magnon skulls, must be older by untold millenniums than the utmost period demanded by Prof. Max Müller for the Aryan sep-

aration, older also, in all probability, than the time when glaciers were the sole occupants of the region which, he maintains, was the first habitable spot on earth.

Prof. Max Müller also puts forward the curious theory that since the Indus rises in the Pamir, it "would have served as a guide to the South-East," thus "leading the Indo-European race to India." A very dangerous guide it would have been, since the Indus, which, as it happens, does not rise in the Pamir, but is separated from it by some of the loftiest mountains in the world, foams through the Himalaya by an unexplored and impassable chasm, which is believed to be some 14,000 feet in depth. Through this terrific gorge the Indians, with their families and their flocks, must have marched to the Punjab after they had separated from their Iranian kinsmen!

Prof. Max Müller concludes by affirming that he has "always confined himself to the statement" that the Aryan home was "somewhere in Asia." I am tolerably familiar with his works, but I have been unable to verify this assertion. I discover it, for the first time, in a magazine article written only three years ago. In his best known work, the "Lectures on the Science of Language," delivered in 1861, he selected as the probable cradle of the Aryan race, "the highest elevation of central Asia," that same "highest point of Asia" to which he now returns, "the region drained," he now tells us, "by the feeders of the Indus, the Oxus, and the Yaxartes." The only important difference that I can see between the two statements is that he now includes the Indus, judiciously omitted in the Lectures, as one of the rivers which watered the Aryan home.

Prof. Max Müller hopes "we shall hear no more of Sweden as the cradle of the Aryas." I hope so, too; and I also venture to hope, though I do not expect, that we shall hear no more of that still more impossible cradle, the Pamir, well called "the roof of the world," or of any of the "highest points" in any of the continents.

ISAAC TAYLOR, Litt.D., L.L.D.

SETTLETON RECTORY, YORK.

"SOUVENIR DU IER MARS, 1815."*

(RETURN FROM ELBA.)

BY LOUIS BELROSE, JR.

I.

'Twas here the landing? here they pitched the tent
Till midnight, when the fatal march began
That yet once more, despite the nations' ban,
Shook earth a hundred days? and such event

Marked like a petty road-side accident!—
Not thus, O giant Corsican,
Uprose the shaft in that ambitious plan
Which I had formed for such a monument.

Not thus, but glittering with all the gold
Thy glory cost the Gaul, and thy disgrace;
While mounting toward thine image, as of old,

The burnished mass was fashioned to enshase
A million skulls—thy legend briefly told;
And all the sea was blood about the base.

II.

O Tyrant, we are small as thou art great,
But mid the rabble thou didst so despise
Be some that look the gods between the eyes
And fear not. Yea, be some that dare to rate

Their halo but a mask; and when in state
I raised thy cursed genius to the skies,
'Twas there to strip thee of thine old disguise
And join to endless fame eternal ha'e.

But all was done that I had hoped to do,
By him who reigned thine heir and blood-in-law,
Late Prussia's high Purveyor to the Maw,

When, with himself and mighty retinue,
He left the lion's skin beneath her paw,
And made Sedan a bastard Waterloo

GOLFÉ JOUAN (near Cannes, France), 1874.

BOOK REVIEWS.

THE LIFE OF ALBERT R. PARSONS. With a brief History of the Labor Movement in America. By Mrs. Lucy E. Parsons. Chicago: 1889.

THE LIGHT OF PERSIA; OR, THE DEATH OF MAMMON. And other Poems of Prophecy, Profit, and Peace. By George P. McIntyre. Chicago: 1890. The Wage Workers' Publishing Company.

We review these books together, not because they are of equal interest or value, but because they are both echoes of the Labor cry, the new *De Profundis*, the passionate psalm of the workers appealing out of the depths of misery and degradation for more wages and less hours of daily toil. To understand the Labor question it is not enough to learn the laws of social and political economy; we must also know what the laborers think and feel; and this knowledge must be obtained from their own books.

There is a weird fascination about this "Life of Albert R. Parsons." Few stories in our literature are told with such dramatic power as this. No book of 1889 will live so long as this vivid biography. It is a tale of chivalry so exalted, with an ending so tragical and pathetic, that it reads like a romance by Stevenson or Haggard. In all the ideal knighthood of Sir Walter Scott, there is not a high-born Templar or Crusader whose heroism can be compared to the self-devotion and chivalry of this indomitable puritan, who was merely a Knight of Labor without crest, coat of arms, or any other heraldry of barbarian aristocracy. Americans cannot study the character of Parsons without admiring his integrity and courage, however much they may condemn the doctrines for which he forfeited his life. Out of this admiration for his personal qualities will spring the question which sooner or later must be answered by every American conscience, Was it necessary to put this man to death? Was it wise? Was it merciful? Was it religious? Was it just? Was it legal? To every one of these questions the answer must be, No. The sacrifice of Parsons was a political tragedy casting over the Labor question a storm-cloud, which grows darker and more ominous as time adds to the glamor of the catastrophe.

That the death of Parsons should become an epoch in the Labor movement and pass into history as a part of it, is due to the mad vengeance of the men who hanged him. By this blunder they exalted him to the rank of a representative, not of anarchy, but of labor. On the morning of the execution a laborer was riding on the front platform of a North State Street car. Passing the jail, he said to the driver, "What is anarchy?" "I don't know," was the answer. "I understand it means more wages and less hours of labor for the working man." It is easy to show that anarchy does not mean anything of the kind; but by hanging Parsons, the classes taught the masses to give that meaning to the word. A grotesque horror is added to the drama by the concession that Parsons was entirely innocent of any knowledge of the crime for which he was condemned, and of all participation in it, excepting that he had preached the gospel of anarchy, whereby he had become indirectly, inferentially, psychologically, and metaphysically responsible for

* Composed before a small column bearing this inscription which stands by the road near the spot where Napoleon landed.

the bomb-throwing in the Haymarket. Under the circumstances, it is not inappropriate that the history of Parsons and the history of the Labor movement should be blended in one book.

The book itself is a curious compound of articles and opinions contributed by different persons. Its lack of all art, method, plan, or unity of construction adds to its interest by variety of treatment. It contains a History of the Labor Movement in America, by Joseph Gruenbut; a History of the Labor Movement in Chicago, by George A. Schilling; an Auto-Biography of Parsons; his adventures, travels, and speeches, Capt. Black's account of him, incidents of his trial, extracts from the pamphlet called "The Trial of the Judgment," an account of the Haymarket meeting, Echoes from the prison cell, and other matters concerning Parsons and his work. The gorgeous and stately romance *Ivanhoe* is not more exciting nor so full of incident.

Parsons was an enthusiast, cherishing the ideal of a perfect social system which mankind will never see until human nature itself shall experience the "new birth," and change its character. He was a man of genius, refined in manner, and possessed of rare poetical and oratorical powers. His eloquence was magnetic, and his argument clear. He could use sarcasm with fine effect, and in denunciation he was forcible and keen. There was no cruelty in his nature, and his private life was pure. Some of his writings in the "Alarm" cannot be justified. They were not only incendiary in the dangerous meaning of the word, but they were irrational and useless for anything but mischief. It is curious, however, that the same sentiments and the same language were uttered at the same time in the National House of Representatives, by the Chaplain of the House, in public prayers offered in the hearing of Congress, and paid for out of the treasury. He was not put to death for his extravagant speaking, but he was re-elected to his office, to pray the like prayers over again. Parsons was hanged for preaching anarchy, but the chaplain was rewarded for praying it. It is a feeble excuse for either of them that they only intended to sound an alarm as the prophet thundered against Nineveh.

Few braver things are found either in fact or fiction than the manly act of Parsons, who, out of a place of safety in Wisconsin, came to Chicago, and walking into the court room, quietly said to the judge, "I present myself for trial with my comrades, your honor." This magnanimity was answered by a sentence of death, executed with ceremonial cruelty in the state of Abraham Lincoln, whose immortal glory is written in the inspired words "With charity for all, with malice towards none"; a sentiment harshly reversed in the Anarchist case where judgment was executed with malice towards all, with charity for none.

As to the "Light of Persia, and other Poems," the book bears the imprint of the "Wage Workers' Publishing Company," and therefore brings with it some apparent credentials from the labor element. For this reason it may receive some notice which it might not otherwise obtain. The book should be judged kindly, for, no doubt, the author means well, and wishes to see the laborer's condition improved, but he contributes very little towards the desired result. The book consists of 220 pages, of which about one third is given to "The Light of Persia, and other Poems," and the other two thirds are the author's scrap-book, a collection of clippings on all manner of subjects, by all manner of men. Of course any man has a right to print his scrap-book, but it would be more candid to call it that, than to advertise it under the attractive title of "The Light of Persia."

Desiring to give a generous and indulgent hearing to anything on the working man's side, we can see very little in this book to be commended, and much to be condemned. Railing and scolding in lame and feeble verses is not poetry; nor are the passionate expressions of a morbid egotism worthy the attention of working men.

It is disappointing to find that the verses called "The Light of Persia," are a hysterical hymn to some tremendous chemical

explosive compound which is to regenerate mankind. Enough of it can be concealed in the palm of the hand to crumble the great pyramid of Egypt. The effect of a pinch of it thrown among a flock of sheep is thus tenderly described:

"Quick the mysterious power hovered o'er the flock and then it fell;
And had that flock been Bankers, Lawyers, they had been 'pleading'
now in hell."

A trial is going on, and the judge, jury, prisoner, lawyers, and spectators are all playfully blown up in the same way by this "limpid quintessence of light." There is nothing better or more enlightened in Mr. McIntyre's poetry than the couplet quoted above, although there are some poems and bits of prose by other people in the scrap-book part of the volume which are well worth reading. When the doctrines of the "Light of Persia" are promulgated with ability they injure the cause of Labor, when advocated without ability, they bring it into contempt.

NOTES.

We have cut out certain portions from the article by Ludwig Noiré in this number, and refer those readers who wish to inform themselves about further details to the original work "Logos," Chapter XIV. We have omitted those paragraphs which introduce Schopenhauer's views of causality, first, because what Noiré means cannot be very well understood without an acquaintance with Schopenhauer's dissertation on the quadruple root of the principle of sufficient reason (*Über die vierfache Wurzel des Satzes vom zureichenden Grunde*); and, secondly, because this pamphlet contains some radical errors which Ludwig Noiré not only did not overcome but allowed himself to be influenced by. Our criticism of Schopenhauer may be briefly sketched thus: Schopenhauer says the proposition of sufficient reason has four roots, which are of radical difference; and he distinguishes between the *principium rationis sufficientis fiendi, cognoscendi, agendi, et essendi*. It thus appears as if different kinds of causation could exist, which would be absurd. The *causa agendi* is a special kind of *causa fiendi*; and the *causa cognoscendi* as well as *essendi* are not causes at all but reasons. Schopenhauer was one of the boldest thinkers, yet he had not freed himself from the metaphysicism of former centuries. His "Will" is not only a natural phenomenon, such as is the will of man and animals, the growth of plants, the falling of stones, but also a supernatural phenomenon that can produce effects of telepathy and might create worlds. It is Kant's thing in itself endowed with all the attributes of mysticism. The results of Ludwig Noiré's most important investigations, however, remain untouched.

Mr. Henry C. Badger is an agnostic, and in an article published in *The Unitarian Review*, he calls the editor of *The Open Court* simply because the latter is not an agnostic, "an Hegelian." In connection with this odd statement, he objects to "the assumption" that "whatever is known to God may be known by man," and continues: "Human conceit has before soared as high, but its wings of wax soared toward humiliation."

Hegelianism is characterized, in a quotation from Dr. Hedge, as "self-sufficiency combined with moral indifference." The passage quoted from Dr. Hedge refers to Heine and alludes to one of Heine's most famous yet flippant *bon mots* regarding Hegelianism and Heine's course of study with Hegel in Berlin. Mr. Badger is apparently ignorant of the source of Dr. Hedge's quotation or he would never have used it to characterize Hegel's philosophy. There is an ethical side to the forming of an opinion about a man, and of that Mr. Badger seems to have little conception. We are strongly opposed to Hegel, but he is too great a giant in the empire of philosophic thought to be dealt with so slightly.

Mr. Badger must know little of Hegel and still less of the views propounded in *The Open Court*. Strange that modest agnostics of this stamp so rarely retain their modesty for home-consumption! Who gave them the authority to limit investigation whenever they happen to be benighted themselves? Mr. Badger is leading Unitarianism upon slippery ground and certainly not on a road that lies in the direction of progress. He quotes approvingly Dr. Hedge's answer to the question "What do Unitarians most lack?" "Humility!" Mr. Badger, we judge, is a Unitarian.

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A ROMAN JOURNAL.

ANGELS OF GOOD AND EVIL.

BY MONCURE D. CONWAY.

BENEATH the ancient church of the Capucins is a crypt-cemetery, where the medieval monks were buried in earth brought from Jerusalem. It was for some time believed that the flesh of Christians would not decay, if buried in soil of the Holy Land, and a cemetery was made of it at Pisa, in which Princes, and dignitaries able to pay for the privilege, were interred. The walls enclosing the Pisa cemetery are frescoed with pictures, one of which shows the graves there opening, at the last day, and revealing forms fresh as if just buried, beside the skeletons of those buried elsewhere. But the Capucins found their predecessors turned to dry bones long ago, and had the fancy to arrange these bones in architectural order. They built up with them a series of rooms, with arched roofs, the partitions being entirely of bones. There are six or seven of these rooms. There are arched alcoves of bones, bordered with skulls, and with skull key-stones; there are spandrels of bones; and even floral traceries over the ceiling neatly made of fingers and toes. In one of the rooms a skeleton has been placed in the centre of the ceiling to represent Death, the scythe being made of small bones. This Death grins in a ghastly way over the heaps of those who have fallen beneath his scythe. Around each room are niches in which, seated or reclining, are skeletons, presumably of eminent monks, clad in the brown Capucin garb. In the half-light, which prevents the scene from being simply horrible, these particular figures appear as if fallen asleep; indeed, they might easily suggest such legends as that of the Seven Sleepers—a legend which, as filtered into the secular mind, took the shape of Barbarossa, Arthur, and other immortal slumberers, and, in America, was reduced to ragged Rip Van Winkle.

The whole bone-crypt is a monumental witness to the material character of the future life for which these old monks made such sacrifices. The ideal paradise of those who, with much cost and labor, brought this soil from Jerusalem, was one in which their flesh was to be preserved eternally, undecayed, and to enjoy pleasures of the flesh. What was it to

give up pleasure for a few years, to suffer a brief lifetime, for such payment as an eternity of pleasure? And as for martyrdom, that was in living so miserably, not in dying—which but opened the portal of the eternal palace more speedily. In fact the old crucifiers of the flesh naturally courted death, and even committed suicide—nuns especially—until, in the absence of any scriptural text against suicide, the Church had to issue a decree against self-slaughter.

It is, no doubt, a survival of this materialistic conception of immortality which to-day impedes the adoption of Cremation. An English Bishop once expressed his belief that the general practice of cremation would prove fatal to Christianity. He may be right. Were the masses to familiarize their senses with the dissipation of human forms, it would be beyond their average imagination to believe that such bodies would be created again from dust in order to be punished or rewarded. It is said that Prometheus, who brought fire from heaven, took away human belief in immortality. He brought the fire that men might fuse, and forge, and refashion the world by various arts, but he found that they would never do this so long as they believed that a perfect world was already created, and could be reached by the near and simple means of death.

Heine says that he once met the Devil, and said to him: "How is it that I have always seen you represented as hideous? I find you decidedly good-looking." "Ah," replied the Devil, "man lost his earthly paradise by me, and has always painted me ugly." But, if a spiritual heaven, in the presence of God, be happier than a terrestrial paradise apart from that presence, Satan ought not to be vilified. Eden, in which was everything pleasant to the taste, and to the senses, was—according to the legend—given by Eve in exchange for divine wisdom. "Ye shall be as Gods," said Satan; and sure enough, after the fruit was eaten, the Elohim confessed, "Man has become as one of us." Death was then bestowed as a portal through which man might find with God a paradise, not like that of the senses which knowledge lost him, but one worthy of a being who had become "as one of us"—the Elohim. That Satan, who thus opened to man a higher paradise, should be hated and blackened, suggests that, after all, it was—to some ex-

tent still is—the sensual paradise which mainly animates the ardor of man for a future world.

Just above the bone-crypt, in this same old church of the Capucins, there is a painting by Guido, containing the ugliest known representation of him who is said to have brought death into the world. It is by Guido Reni. It is often said to be the expulsion of Satan from heaven, but this is a mistake. When Satan was expelled he was a leading angel, according to the legend, and his wicked works on earth had not begun. Guido meant to paint the millennial angel, for he bears a heavy chain with which the demon is to be bound. The most chivalrous sympathizer with "the under dog in a fight" could hardly feel any pity for this prostrate fiend. His countenance is, first of all, cruel; the mouth and teeth seem made to bite. The complexion is that of dirty copper; the eyes are crafty and hard. Those who have read Nathaniel Hawthorne's beautiful romance, *The Marble Faun*, may remember that it was in this demon that he found the semblance of the evil being who dogged poor Miriam's footsteps everywhere until her lover threw him over the Tarpeian Rock. He proved to be a Capucin friar. In this wretch Hawthorne drew a figure representing motiveless wickedness—a creature evil for the love of evil; for he does not seek Miriam's love or money, but merely wields a torturing power he happens to have over her. And it is this cold, passionless villainy and cruelty which Guido has painted. The angel points his sword at the prostrate demon, but of course it is a sham gesture. He does not mean to kill him. Satan is too useful an executioner, as a terror, to be slain. I do not like this attitudinising angel for several reasons. He is larger than Satan; he is armed, as Satan is not; and has wings with which he could pounce on his adversary from above. It suggests a superiority of animal force. There is a copy of the picture which led Hawthorne to say that the angel was too dainty; the sandaled feet were those of a celestial coxcomb, fearing that they would be soiled by contact with Lucifer. This he did not find in the original, but I did. But Hawthorne does not retract another criticism of his; namely, that there ought to be some signs of a struggle—a loosed sandal, a ruffled wing. To my own mind this is the necessity of the angel's having brought carnal weapons to the struggle—a larger frame and a sword. The daintiness and the easy victory would be appropriate only if the angel had dispensed with his military character, and were representing simply the superiority of purity over baseness, or of good over evil. He is fighting the devil with the devil's own weapons, and it is not to be supposed that a victory of that kind is won so easily.

There is a picture of a similar subject, by Sanga-

relli, in an old church at Sorrento, of which I have seen no mention, but which impressed me as more true and beautiful than Guido's. The prostrate demon—also too hideous for pity—has eyes expanded with surprise; and well they may be, for the angel that has subdued him is not of heroic size, but slight as a girl of sixteen; moreover, this small angel bears no weapon whatever. The foot here planted on the fiend is here rightly made tiny and dainty, for on the small shield borne on her left arm are the words *Quis ut deus?* She stands there for the infinite strength of the Dove, to which her weaponless right hand points. The Almighty is pictured there pointing to his son, and the son, pointing to his wound; but the central object is the Dove—type of the apparent weakness of innocence—whose visibly descending spirit, or breath, has proved too mighty for the personification of chaos, as, in the older legend, its brooding was for chaos itself. It is the picture of good subduing evil with good, of beauty and wisdom triumphant over darkness and monstrosity by their own superiority—not by iron or brute force of warriors. A fallacious proverb says, one must fight the devil with fire; but the devil is sure to get the better, in the end, where the weapons of combat are his own. In Guido's picture, Satan smiles slightly, even under the angel's foot; as if he knew that his conqueror, in consecrating the sword, is doing his—Satan's—own work. But Sangarelli is wiser; his Satan is genuinely frightened; this kind of power, which wields no blood-stained sword, is just the one force he knows not how to meet.

MAX MÜLLER ON PHYSICAL RELIGION.

THE SECOND COURSE OF GIFFORD LECTURES AT GLASGOW UNIVERSITY.

II.

NO DOUBT the ruins of Carnac in Egypt look grander, the palaces of Nineveh are more magnificent, the streets and houses and temples at Pompeii are more imposing than a hundred volumes of Vedic literature. But what is it that gives life to the colossal ruins of Carnac, what allows us a real insight into the palaces of Nineveh, what imparts to the streets and houses and temples of Pompeii a meaning and a real human interest, if not the inscriptions on their walls and the rolls of papyrus and parchment which tell us of the thoughts of the ancient Egyptians, or Assyrians, or Romans? Mere monuments, mere lists of kings, mere names of battles, what do they teach us? But give us *one* thought, *one* truly human sentiment, and we feel at home among those ancient ruins: the Babylonian statues begin to live, the Egyptian mummies begin to speak, and the streets of the ancient Pompeii

*From a report in the London *Christian World*, copies of which were kindly sent us by Prof. F. Max Müller.

swarm once more with senators, with philosophers, and the gay society of ancient Italy. Here it is where the discoveries in India assert their superiority over all other discoveries in ancient history. It is true we have no ancient temples or palaces in that country. The Indian mind had no faith in that small immortality which the kings of Egypt and Babylon valued so much, and strove to secure for themselves by their stupendous edifices. The Hindu always felt himself a mere stranger on earth, a sojourner in a foreign land, and the idea of perpetuating his name and fame for a few thousand years by brick and mortar, never entered his mind, till he had learnt it from outsiders. But if the Aryans in India have left us no stones, they have left us bread—thoughts to feed on, riddles to solve, lessons to learn, such as we find nowhere else.

Here is the place to ask what this Veda really is. The Veda has become such a power not only in linguistic research, but in all antiquarian, religious, and philosophical studies, that no honest student can be satisfied with a vague idea of what the Veda is. It has been usual to speak of three or even of four Vedas; namely, the *Rig-veda*, *Yagur-veda*, *Sâma-veda*, to which the *Atharva-veda* has been added as the fourth. Now, although from an Indian point of view this is perfectly correct, nothing can be more misleading from an historical point of view. From an historical point of view there is but *one* real Veda, the *Rig-veda*, and when we say the *Rig-veda*, what we mean is the *Rig-veda-samhitâ* only, the collection of hymns, and nothing else.

The *Samhitâ* of the *Rig-veda* is a large collection of hymns, chiefly but not exclusively, of a religious character. This collection, as we now possess it, handed down in the school of the *Sâkalas*, consists of 1,017 hymns, while in the school of *Bâshkalas* their number amounts to 1,025. If we take into account the length of the Vedic verses—of which there are said to be 10,402—as compared with the Greek hexametre, the *Rig-veda* may be said to contain nearly as much as the *Iliad* and *Odyssey* together. This is all we have, and ever shall have, for studying that ancient period in the history of the Aryan race, which precedes in language, mythology, and religion the Homeric period, hitherto the most ancient period in the history of our race.

According to Hindu authorities, every Veda consists of a collection of hymns, *Samhitas*, and prose compositions, *Brâhmanas*. These *Brâhmanas* are the earliest specimens of prose literature in India which we possess, and their object was to describe the elaborate system of sacrifices which had grown up among the *Brâhmanas*, and to show how the hymns or portions of the hymns should be used at each sacrifice.

For the performance of these sacrifices particularly

of the great sacrifices, three distinct classes of priests were required. One class had to perform the manual work, which was very considerable, the clearing of the sacrificial ground, the erection of altars, the lighting of the fire, the preparation of the offerings, etc. They were called *Adhvaryus*, the laboring priests, and their duties, mixed up with endless speculations, were described in the *Brâhmanas* of the *Adhvaryus*. Another class of priests had to sing. They were called *Udgâtris*, and their respective duties were in the same way described in the *Brâhmanas* of the *Udgâtris*. A third class of priests had to recite certain hymns with the utmost correctness of articulation. They were called *Hotris*, the reciting priests, and their duties were described in the *Brâhmanas* of the *Hotri* priests.

Now mark the difference. The collections of Vedic hymns, called the *Samhitâs* of the *Yagur-veda* and *Sâmâ-veda*, are mere prayer-books for the use of the laboring and singing priests, and they follow the order of the sacrifices at which they had to be recited. Fortunately, no such selection was made for the reciting priests, but they had to know all the ancient hymns by heart, and learn from the *Brâhmanas*, which verses had to be recited at certain sacrifices. This complete collection of Vedic hymns is the *Rig-veda-samhitâ*. It is the only historical collection of hymns. It alone represents the earliest period of Indian language, mythology, and religion. It is to us the only *true Veda*.

Between the period represented by these hymns, the duration of which may have been many centuries, and the period which gave rise to the prose works called *Brâhmanas*, there is a complete break. How it came about we cannot tell, but it is a fact that the authors of the *Brâhmanas* had completely lost the true meaning of the Vedic hymns. Their interpretations, or rather misinterpretations, of these ancient hymns are perfectly astounding. Their one idea is the sacrifice, which had assumed such proportions, and had been elaborated with such hair-splitting minuteness that we may well understand how the *Brâhmanas* had no thoughts left for anything else. The hymns had now become a merely subordinate portion of the sacrifice. The proper position of a log of wood or of a blade of grass round the sacrificial fire, seemed of more consequence than the expressions of gratitude, the prayers for forgiveness of sin, the praises of the mighty deeds of the gods, contained in the hymns of their ancestors.

It ought not to be supposed, however, that what we call the *Brâhmana* period represents to us the whole of the intellectual, or even of the religious, life of India. It would be fearful to think that millions of people should for generations have fed on such stuff as we find in the *Brâhmanas*, and on nothing else. All we can say is that these *Brâhmanas* represent to us the only pillars left standing in a vast field of ruins,

but that they need not have been the pillars of the only temples which once existed there. Besides, every temple presupposes a vast surrounding of busy life without which a priesthood would find itself stranded high and dry.

Even in the hymns of the Rig-veda we find a great deal more than merely religious sentiments. We find in them traces of a busy life in all its phases, peace and war, study and trade. Thus we read in hymn ix. 112 :

'Different indeed are our desires, different the works of men. The carpenter looks for something that is broken, the leach for something that is sprained, the priest for one who offers oblations. . . . The smith with his dry sticks, with his wings of birds (in place of bellows), and his stones (anvil) looks day after day for a man who possesses gold. . . . I am a poet, my father is a leach, my mother works the mill ; with different desires, all striving for wealth, we are as if running after cows.'

We find in the Veda many of the virtues and many of the vices of modern times. It was thought that gambling was a modern vice, but nothing could be more mistaken. The whole of the epic poetry of India rested on gambling. As an illustration, may be quoted the following verses from the Rig-veda, x. 34. The dice used were nuts.

1. 'These dice that have grown in the air on the great (Vibhidaka) tree drive me wild when they roll about on the board. This Vibhidaka seems to me exciting like a draught of Soma that has grown on Mount Magāvat.

2. 'She (my wife) never troubled or chid me, she was kind to me and to my friends. But I, for the sake of this only beloved dice, have spurned my devoted wife.

3. 'My mother-in-law hates me, my wife avoids me, the miserable finds no one to pity him ; nor do I see what is the use of a gambler, as little as of an old horse offered for sale.

4. 'Others pet his wife, while his war-horse, the dice, thirsts for booty. Father, mother, and brothers say of him, "We do not know him, lead him away bound."

5. 'And when I think I shall not play with them again, then I am left by my friends, who run away. But when the brown dice are thrown down and utter speech, then I rush to their rendezvous like a love-sick maiden.

6. 'The gambler goes to the assembly, his body glowing ; asking : "Shall I win ?" Alas, the dice cross his desires, handing over to his opponent all that he has made.

7. 'These dice hook, prick, undo, burn, and inflame. After giving childish playthings they ruin the winner ; but to the gambler they are all covered with honey.

8. 'Their company of fifty-three plays about, like the bright Savitri whose laws are never broken. They do not bend before the anger of the mighty, even the king bends down before them.

9. 'They roll down, they jump up, though having no hand themselves they resist him who has hands. These playing coals, though cold, when thrown on the board, burn the heart through and through.

10. 'The wife of the gambler mourns forsaken, so does the mother of the son gone away ; she knows not whither. In debt,

trembling, longing for money, the gambler goes to the house of others by night.

11. 'It grieves the gambler when he sees his wife, and the wives of others, and their well-ordered house. In the forenoon he has harnessed his brown horses (the dice) ; and when the fire is out, the wretch sinks down.

12. 'He who is the general of your large company, the king of the troop, the first, to him I stretch my ten fingers to swear—I do not refuse my stake—I speak now the truth :

13. "'Do not play with dice, plow thy field, enjoy what thou hast, consider it much. There are thy cows, O gambler ! there thy wife—this is what the noble Savitri has told me

14. "'Make friends, O dice ! have mercy on us, do not bewitch us with powerful enchantment. May your wrath abate, and your enmity ; let some one else be held in the snare of the brown dice."

There were three periods of Sanskrit literature, embracing the Mantras, Brahmanas and Sūtras. If now we ask how we can fix the date of these three periods, it is quite clear that we cannot hope to fix a *terminus a quo*. Whether the Vedic hymns were composed 1,000, or 1,500, or 2,000, or 3,000 years B. C., no power on earth will ever determine.

The question then arises, can we fix a *terminus ad quem*, can we determine the date of the last Vedic period, that of the Sūtras, and then work our way back to the two preceding literary periods? I believe this is possible. You know that the sheet-anchor of ancient Indian chronology is the date of the contemporary of Alexander the Great, Sandrocottus, who is the Chandragupta of Indian history. This Sandrocottus, who died 291 B. C., was the grandfather of Asoka, who reigned from 259 to 222 B. C., and whose inscriptions we possess engraved on rocks and pillars in numerous places in India. This Asoka tolerated, or even accepted, the religion founded by Buddha, and it was during his reign that the second great Buddhist council was held at Pātaliputra. On the strength of the information contained in the Buddhist canon, as settled at the council under Asoka, we are enabled to place the rise of Buddhism at about 500 B. C., and the death of its founder at 477 B. C. These are dates as certain in the eyes of the general historian as we can ever expect to extract from the extant literature of India.

Now Buddhism is not a completely new religion. On the contrary, it represents a reaction against some of the extravagant theories of the Brāhmins, and in one sense it may be said to be a practical carrying out of the theories proclaimed for the first time in the Aranyakas and Upanishads. While the Brāhmins allowed the members of the three upper castes to retire from the world after they had performed all the duties of their youth and manhood, the Buddhists allowed everybody to become a mendicant, whether he had passed this previous apprenticeship or not. Again, while the Brāhmins reserved the right of teaching to

themselves, Buddha, who belonged to the caste of the nobles, claimed that right for himself and for all who were 'enlightened.'

These are the two essential points of difference between Brāhmanism and Buddhists. But we can show that not only was Buddhism a kind of Protestantism, as compared with Brāhmanism, but we can point out a number of thoughts and words the growth of which we can watch in the periods of Vedic literature, and which were taken over bodily by the Buddhists, though sometimes with a change of meaning. Nor must we forget that though Buddhism, as a religious, social, and philosophical system, is a reaction against Brāhmanism, there is an unbroken continuity between the two. We could not understand the antagonism between Buddhism and the ancient religion of India, unless the Vedic religion had first reached that artificial and corrupt stage in which we find it in the Brāhmanas.

Buddha himself, as represented to us in the canonical writings of the Buddhists, shows no hostility to the Brāhman in general, nor does he seem to have been fond of arguing against Brāhmanism. If the prevailing religion of India at his time had consisted of the simple Vedic hymns only, Buddha's position would become quite unintelligible. If, then, the very origin of the Buddhist reform in India would be unintelligible without the latest phase of the Vedic religion, if Upanishads and Sūtras must have existed, if the word Upanishad must have come to mean 'secret doctrine' before it could be used in the sense of secret and cause, and if the word Sūtra must have assumed the general meaning of teaching, before it could have been applied to Buddha's sermons, we have found a *terminus ad quem* for our Vedic literature. It must have reached its final shape before the birth of Buddha, that is about 600 B. C. Before that date we must make room for three whole periods of literature, each presupposing the other. If, then, we place the rise of Buddhism between 500 and 600 B. C., and assign 200 years to the Sūtra-period and another 200 years to the Brahmana period, we should arrive at about 1000 B. C. as the date when the collection of the ten books of the ancient hymns might have taken place. How long a time it took for these hymns, some of them very ancient, some of them very modern in character, to grow up, we shall never be able to determine. Some scholars postulate 500, others 1000, or even 2000 years. These are all vague guesses and cannot be anything else.

I should like to give you an idea of what the general character of the Vedic hymns is, but this is extremely difficult, partly on account of the long period of time during which these hymns were composed, partly on account of the different families or localities where they were collected.

The Vedic hymns have often been characterized as simple and primitive. It may be that this simple and primitive character of the Vedic hymns has sometimes been exaggerated, not so much by Vedic scholars as by outsiders, who were led to imagine that what was called simple and primitive meant really what psychologists imagined to have been the very first manifestations of human thought and language. They thought that the Veda would give them what Adam said to Eve, or, as we should say now, what the first anthropoid ape confided to his mate, when his self-consciousness had been roused by discovering that he differed from other apes by the absence of a tail, or when he sighed over the premature falling off of his hair, which left him at last hairless and naked, as the first *Homo sapiens*. These expectations have no doubt been disappointed by the publication of the Rig-veda. But the reaction that set in has gone much too far. We are now told that there is nothing simple and primitive in the Vedic hymns. Nay, that these verses are no more than the fabrications of priests, who wished to accompany certain acts of their complicated sacrifices with sacred hymns.

These charges, however, are utterly unfounded, and in no other literature do we find a record of the world's real childhood to be compared with that of the Veda.

Another view of the Veda has of late been defended with great ingenuity by a French scholar, M. Bergaigne, a man whose death has been a serious loss to our studies. He held that all, or nearly all, the Vedic hymns were modern, artificial, and chiefly composed for the sake of the sacrifice. Other scholars have followed his lead, till at last it has almost become a new doctrine that everywhere in the world sacrifice preceded sacred poetry.

Here again we find truth and untruth mixed up together. That many Vedic hymns contain allusions to what may be called sacrificial customs, no one who has ever looked into the Veda can deny. Some of the hymns, and generally those which for other reasons also would be treated as comparatively late, presuppose what we should call a highly developed system of sacrificial technicalities. The distinction, for instance, between a hymn and a song and a sacrificial formula, the distinction on which rests the division of the Veda, into Rig-veda, Sama-veda, and Yagur-veda, is found in one of the hymns (x. 90) and there only. But curiously enough, this very hymn is one of those that occur at the end of an Anuvaka, and contains several other indications of its relatively modern character. Many similar passages, full of sacrificial technicalities, have been pointed out in the Rig-veda, and they certainly show that when these passages were composed, the sacrifice in India had already assumed what seems

to us a very advanced, or a very degraded and artificial character.

This whole question, so hotly discussed of late, whether sacrifice comes first or prayer, whether the Vedic poets waited till the ceremonial was fully developed before they invoked the Dawn, and the Sun, and the Storm to bless them, or whether, on the contrary, their spontaneous prayers suggested the performance of sacrificial acts, repeated at certain times of the day, of the month, of the year, is impossible to solve, because, as it seems to me, it is wrongly put. We nowhere hear of a mute sacrifice; what we call sacrifice the ancients called simply *karma*, an act. Prayer and sacrifice may have been originally inseparable, but in human nature I should say that prayer always comes first, sacrifice second.

That the idea of sacrifice did not exist at a very early period, we may gather from the fact that in the common dictionary of the Aryan nations there is no word for it, while Sanskrit and Zend have not only the same name for sacrifice, but share a great many words together which refer to minute technicalities of the ancient ceremonial. Nothing justifies us in supposing that the idea of a sacrifice, in our sense of the word, existed among the Aryans before they separated.

In spite of the preponderance which the sacrifice assumed in India, it is important to observe that the Vedic poets were strongly impressed with the feeling that, after all, prayer was better than sacrifice. Thus we read :

Utter a powerful speech to Judra, which is sweeter than butter or honey.

We offer to thee, O Agni, an oblation made by the heart with a verse, let this be thy oxen, thy bulls, and thy cows.

I looked about in my mind, wishing for wealth, among acquaintances and kinsfolk. But there is no guardian for me but you, therefore did I compose this song for you.

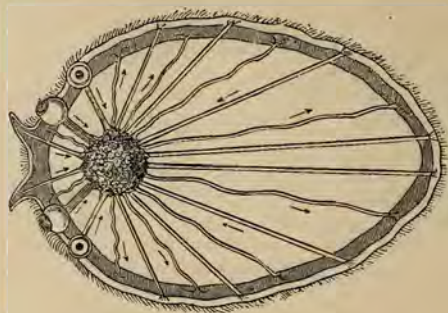
The gods are quite as frequently invoked in the hymns to hear as to eat and to drink, and hymns of praise are among the most precious offerings presented to the gods. But sacrifices also occupy a very prominent part in the Vedic hymns. Only we must distinguish. When we hear of sacrifices, we cannot help thinking at once of sacred and solemn acts. But the very names and concepts of sacred and solemn are secondary names and concepts, and presuppose a long development. We must never forget that many of the ancient sacrifices were indeed nothing but the most natural acts, and that some of them are found with slight variations in the most distant parts of the world, and among people entirely unrelated and unconnected. A morning and evening offering, for instance, is met with among Semitic quite as much as among Aryan nations. It was originally the morning

and evening meal, to which in many places, a third offering was added, connected with the mid-day meal.

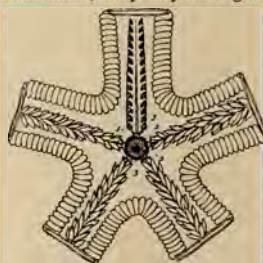
THE NERVOUS SYSTEM OF WORMS, RADIATES, AND ARTICULATES.

THE simplest nervous system consists of a single ganglion with afferent and efferent fibres. Its action is represented in the adjoined diagram. The sensory irritation is transmitted as a primitive reflex motion from the skin, or the sensory organs in the skin *ST*, through the ganglion to the muscles, thus starting from and returning to the periphery; and we have reason to suppose that the transmission of this nervous irritation is accompanied in the ganglion by an extremely vague kind of feeling.

A ganglion constituting the centre of so simple a nervous system as is for instance that of the whirl-worm, is called a primitive brain.



Not much more complicated are the nervous systems of Radiates, whose organs are arranged in a circle like the parts of a flower. The starfishes belong to this class; they may be regarded as five worms having



Asterie

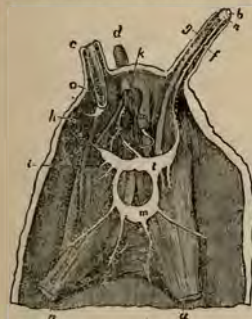
NERVOUS SYSTEM OF A STARFISH.
(The rays are cut off.)

1. Ganglions.
2. Connecting fibres, encircling the mouth and establishing a communication among the five ganglions.
3. Nervous fibres running along lower surface to the ends of the rays

a mouth and a digestive organ in common. Each arm possesses a small ganglion (1) near the mouth. The five ganglions are interconnected by a ring (2) around the mouth; and a nervous fibre passes along on the lower or ventral side from each ganglion to the end of each of the several arms.

Mollusk life is characterized by a strong development of the vegetative functions. Mollusks are mere bags

containing organs of digestion, respiration, circulation, and generation. Ascidians (or pouch-creatures) and Conchs (or shells) have no head whatever; they lead a mere vegetative life. Conchs are now regarded as degenerated snails.* Snails are in possession of a feebly developed head with eyes, tentacles, mouth, jaws, and a tongue. The ventral part of the body, the foot of the snail, is its sole organ of locomotion; it consists of a contractile layer of muscular fibres.



NERVOUS SYSTEM OF THE COMMON GARDEN SNAIL.

l. Cerebral ganglion, situated above the oesophagus, receiving nerves from the tentacles. (After Owen.)

a. Small tentacle withdrawn.

b. Large tentacle with eyes (ocelli).

c. Large tentacle withdrawn.

d. Small tentacle.

f. Nerve fibre of large tentacle.

h. Nerve fibre of small tentacle.

l. Cerebral ganglion situated above the oesophagus, receiving nerves from tentacles.

m. Sub-oesophageal ganglion, a double mass, representing a pair of pedal and a pair of branchial ganglia.

n. Sub-oesophageal ganglion, a double mass, representing a pair of pedal and a pair of branchial ganglia.

o. Sub-oesophageal ganglion, a double mass, representing a pair of pedal and a pair of branchial ganglia.

p. Sub-oesophageal ganglion, a double mass, representing a pair of pedal and a pair of branchial ganglia.

q. Sub-oesophageal ganglion, a double mass, representing a pair of pedal and a pair of branchial ganglia.

r. Sub-oesophageal ganglion, a double mass, representing a pair of pedal and a pair of branchial ganglia.

The highest developed mollusks are the Cephalopods, or head-footed creatures, possessing a circle of organs of locomotion (we may call them arms or feet) about their mouth. Such creatures are the cuttle-fish, or Sepia, and the Nautilus.

The most characteristic feature of the nervous system of Mollusks (as represented in the snail) is the oesophageal ring, surrounding the gullet. There are ganglionic knots at the upper and at the lower part of the ring. The upper part is a primitive brain, receiving sensory fibres from the tentacles, etc., while the lower part acts as the centre of the respiratory and locomotive functions. The lower ganglion is often differentiated into two distinct parts, and in that case the oesophageal ring appears double; the anterior ring connecting the brain with the pedal ganglion for locomotion, the posterior with the branchial ganglion for respiration.

The nervous system of Articulates consists of a series of ganglions, situated below the intestinal canal and interconnected by a nervous fibre. In addition to this series of ganglions the front segment or head possesses an oesophageal ring, similar to that of Mollusks, bearing at its upper part the head-ganglion or primitive brain.

The single ganglions of Articulates, being situated in the various separate segments, are endowed with an extraordinary independence. They act not so much in subordination to as in co-operation with the front ganglion. For instance. If the head of a centipede be quickly cut off while the creature is in motion, the



NERVOUS SYSTEMS OF

A. Common Sandhopper. (*Talitrus locusta*.) Showing (on the right side) two separate cerebral ganglia, each about the same size as the other ganglia situated below it on the separate ventral chords. (After Grant.)

B. *Cymothoa*. (Fish-louse.) Cerebral ganglia (on the right side) almost wholly absent from oesophageal ring.

C. Crab. (*Palinurus vulgaris*.) The cerebral ganglia (on the right side) receiving the optic, tactile, and other nerves, are fused into one. The oesophageal ring elongated; the ventral ganglion strongly developed.



NERVOUS SYSTEM OF THE GREAT GREEN GRASSHOPPER. (After Newport.)

A. Cerebral ganglion.

B. Optic nerves.

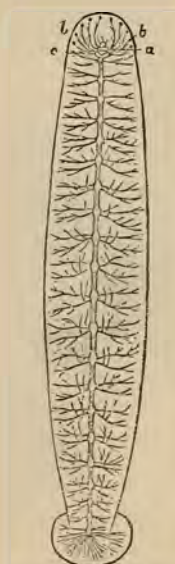
D. Antennal nerves.

d. Motor nerves of mandible, from sub-oesophageal ganglion.

e. Fibres connecting the sub-oesophageal with the first thoracic ganglion.

g. First thoracic ganglion.

h. Commissures connecting thoracic ganglia.



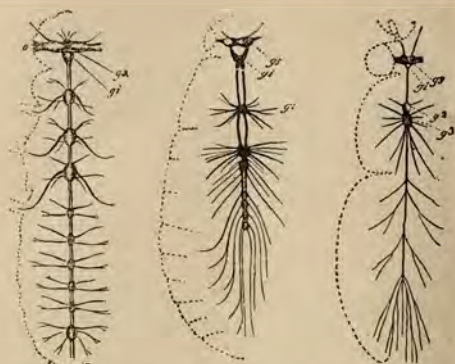
NERVOUS SYSTEM OF MEDICAL LEECH. (After Owen.)

a Double supra-oesophageal ganglion connected with:

b nerves ending in rudimentary ocelli;

c infra-oesophageal ganglion, continuous with a double ventral cord bearing at intervals distinct compound ganglia.

* See Haeckel, *Natürliche Schöpfungsgeschichte*, 8th Ed., p. 543, et seq.



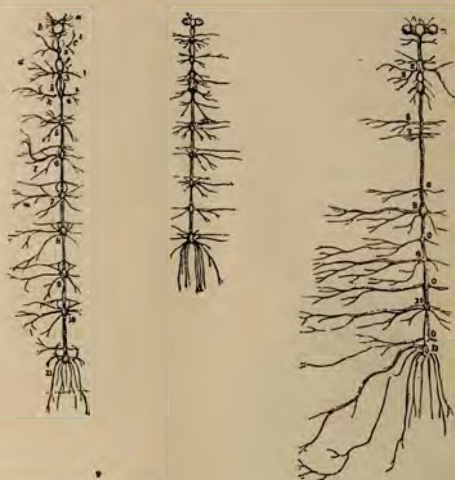
WHITE ANT (*Termita*). WATERBEETLE (*Dytiscus*). FLY (*Musca*).
(From Gegenbauer. After Blanchard.)

gs. Supra-oesophagean ganglion (brain).

gi. Infra-oesophagean ganglion.

g¹, g², g³. Thoracic ganglia (partly fused).

o. Optic nerves.



CATERPILLAR, CHRYSALIS, AND PERFECT INSECT OF HAWK-MOTH (*Sphinx ligustri*).

The first figure shows the full grown caterpillar about two days before changing to a chrysalis. It resembles much the nervous system of the Centipede. The two cerebral ganglia are small, and the ganglia in the ventral cord (1-10) are almost uniform. The nerves of the head (ab) are weakly, those of the other fibres (c-n) fairly, developed.

The middle figure represents the chrysalis of the same creature 30 days after the change from a caterpillar. The abdominal chords are much shortened, some of its ganglia fuse.

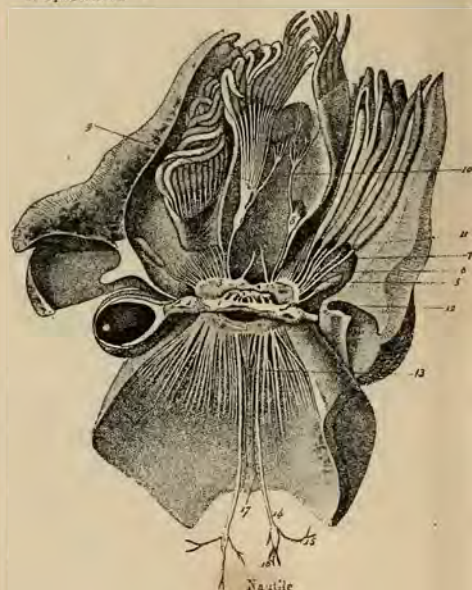
The third figure shows the perfected insect.

A. Cerebral ganglion.

B. Optic ganglion.

Note the increased size of the cerebral ganglion and of some parts of the ventral cord; while some parts are concentrated or even suppressed.

O. Respiratory nerves.



PEARLY NAUTILUS.

(After Owen. Reproduced from Fr. Leuret and P. Gratioulet.)

1. Cerebral ganglion.
2. Optic nerve.
3. Anterior sub-oesophagean ganglion.
4. Posterior sub-oesophagean ganglion.
5. Digital tentacles.
6. Nerves of external labial tentacles.
7. Commissural fibres between 8 and 3.
8. Labial ganglion.
9. Nerves of internal labial tentacles.
10. Olfactory nerves.
11. Infundibular nerves.
12. Lingual and maxillary nerve.
13. Motor nerves.
14. Visceral nerves.
15. Branchial nerves.
6. Visceral ganglia.



NERVOUS SYSTEM OF AN OYSTER.

(Todd. After Garner.)

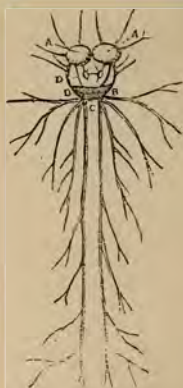
aa. Anterior ganglia; being situated on each side of the mouth, interconnected by a fibre over-arching the mouth.

ll. Labial fibres.

A. Posterior or branchial ganglion (double, for respiration).

bb. Branchial nerves going to the gills (gg).

cc. Commissures between labial and branchial ganglia.



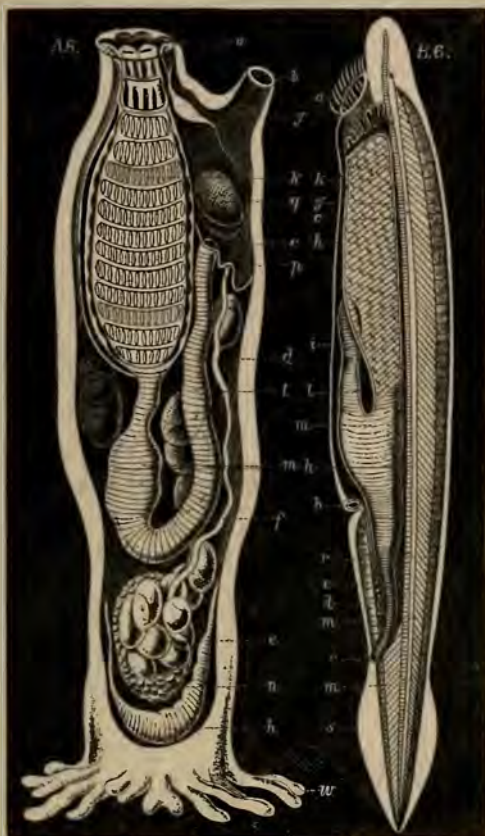
NERVOUS SYSTEM OF THE COMMON SLOO.

(The naked common garden snail; one of the nudibranch mollusks.)

A, A. Cerebral ganglia.

B, B. Branchial ganglia.

D. Pharyngeal ganglia.



ASCIDIA (A) AND AMPHIOXUS LANCEOLATUS (B) AFTER HAECKEL.

The skin of both creatures being transparent, their inner organization is plainly visible.

The Ascidian A 6 is firmly attached to the soil by root-like processes (w), as if it were a plant. The adult Amphioxus however moves about like a fish.

- a. Mouth.
- b. Porus abdominalis.
- c. Chorda dorsalis (appears only in the Lanceolate.)
- d. Intestinal canal.
- e. Ovary
- f. Ovarian duct (appears only in the Ascidian.)
- g. Spinal cord (medulla dorsalis.)
- h. Heart.
- i. Vermiform appendix.
- k. Gills.
- l. Cavity of the body.
- m. Muscles
- n. Testicles (the Ascidian being hermaphroditic, the testicles combined with the ovary).
- o. Anus.
- p. Sexual aperture.
- q. Mature embryos of the Ascidian.
- r. Dorsal fins.
- s. Tail of the Lanceolate.
- w. Roots of the Ascidian.



DEVELOPMENT OF ASCIDIA (A) AND AMPHIOXUS (B).

A. The egg of the Ascidian.

B. The egg of the Lanceolate.

Z. Protoplasma of the egg.

N. Nucleus.

N. Nucleolus.

A2, B2, A3, B3, etc., the successive stages in the development of the eggs. After a repeated division, the germ forms a globule of many cells (called *Morula*) the surface of which in one part sinks down so as to present almost the shape of an india-rubber ball from which the air is removed. Thus a gastrula is formed (A4, B4).

d1. Primitive abdomen.

d2. Primitive mouth.

d3. Entoderm, inner membrane or abdominal wall.

l. Cavity of the germ.

l. ectoderm, outside skin.

A5. The Larva of the Ascidian.

B5. The Larva of the Amphioxus.

d1. The abdomen is closed.

d2. The dorsal part is concave.

d3. The ventral part is convex.

g1. The medullar cavity (in the Amphioxus the primitive spinal cord).

g2. The orifice of the medullar cavity, not as yet closed.

d. Chorda dorsalis, in the Amphioxus the axis of the primitive backbone. In the Larva of the Ascidian the chorda dorsalis forms a tail which is thrown off during its metamorphosis. Those Ascidians which do not become stationary, retain their tails.

legs will mechanically continue to run on until they are brought to a stop by some interposed obstacle. The ganglions of the various segments, it appears, have not as yet received information respecting the loss of their leader. Similarly, flies, after decapitation, will fly about and execute all kinds of motions, like their uninjured companions.

The Articulates (according to Haeckel) consist of three classes: (1) *Annelata*, or ringed worms—for instance, earth worms and leeches; (2) *Crustacea*, or crust-animals—for instance, crabs and lobsters; and (3) *Tracheata*, or wind-pipe animals, so called by Haeckel because they breathe through small tubes. The most important Tracheates are the myriapods, or thousand-legs, the spiders, and the insects. The nervous systems of the best known specimens of these three classes may be studied in the prefixed diagrams.

AN INTRODUCTION TO THE STUDY OF PHILOSOPHY AND SOCIAL ETHICS.*

BY W. M. SALTER.

PHILOSOPHY may possibly have a technical, far-away sound to some of us. Let me indicate briefly how ethics itself leads us to a consideration of its problems. Ethics, of course, deals with what we ought to do. And yet when we ask *what* ought we to do—the most satisfactory answer I can find is we ought to develop the capacities of our nature, to become all we can become.† But the mind is one of the capacities of our nature; and the mind is the power of thinking, of forming notions or ideas.

Now philosophy does not differ from our ordinary notions, save in the fact that these notions have been rid of vagueness, inaccuracy, and inconsistency with one another and have been reduced to some sort of intelligible system. For example, I, like most persons brought up amid books and without business experience, have had, until recently, at least, very shadowy notions about banking, and, particularly, about the operations on the Board of Trade; I knew this and that, but I could not put things together and I knew almost nothing clearly. This is tantamount to saying that I did not have the philosophy of these subjects—I am not sure that I have it yet. Perhaps if some of you were confronted with the question, what is meant by life as distinguished from what is not living, or what is the meaning of matter, you would find your own ideas rather hazy and confused—and so would have to make a similar confession. Now a problem, generally speaking, is any subject about which our ideas are in a disorderly condition, and yet in relation to which, we want to have clear and systematic ideas. Philosophy is thus always related to problems,—it is indeed nothing but the attempt to clear them up or the finished result of the attempt. Our ideas, as a rule, are not naturally clear and consistent—we have to make them so; philosophy means effort—it involves discontent with our existing mental stock-in-trade and the will to turn it over and see how much is sound and how much is rubbish in it; our ideas thus criticized, purified, which stand out luminously clear and make a harmonious whole—that is our philosophy as related to any subject.

The trouble with most of us is that while we clear up some of our ideas, to a certain extent, we leave a great many in as nebulous a state as ever. The man on the Board of Trade must

have some clear idea of what is doing there, else he may lose more than he gains in buying and selling. So the banker must have a sound understanding of banking. But beyond our practical necessities, we are apt to let the clarification of our ideas go. We have philosophy enough to serve us in getting a living, and for more than that we scarcely care. The ethical motive urges our thought to take a wider range. The full development of the mind implies the clarification of its ideas in every realm; not only should each set of ideas be clear and coherent in itself, but any one set should harmonize with any other set, so that all together they should make up a clear and consistent view of the universe. A subordinate official in some business house might do what he was told to do; but he would not *understand* what he was doing save as he knew its relation to the business as a whole. So each single business-house, or line of business, is a part of the larger business-world, and cannot really be understood save as its relations to the larger whole are grasped. The business world itself is a part of the greater world of man—it is simply one sphere of human activity; and that it may be really understood, its plan must be seen and its purpose grasped in relation to the ends of human existence as a whole. Yes, man himself is but a part, and the most difficult problem is, what is his relation to that totality we call nature, or the universe? So, while there may be, properly speaking, a philosophy of banking, a philosophy of business, a philosophy of man, and a philosophy of the universe—it is this last philosophy which is more eminently philosophy, not only because it is the most comprehensive set of ideas, but because we cannot tell whether any subordinate set is really valid until we have compared it with other sets and found that it could be harmonized with them, i. e., until we have found that all together they make up a consistent system of the universe itself. Hence philosophy, in the higher and stricter sense, (and, it must be added, in the sense, to a great degree, customary), relates to the most abstract and comprehensive and fundamental conceptions; and the problems of philosophy are such as these, What is man, what is the meaning of matter, what is life, what is mind, what is nature—and how can we bring all our ideas on these subjects into one consistent system? Remember, let me say, that abstract as they may sound, we all have these ideas—philosophy does not invent them, it is simply the effort to clarify them; we say such a person is a human being—what do we mean by that? we say, such an object is purely material—what do we mean by matter? we say, the tree is alive, or it is dead, what do we mean by life? we speak of natural and supernatural, what definite ideas do we attach to those words?—and universe or God, those most comprehensive and ultimate of all conceptions, what do they signify or mean to us? Philosophy, in the higher and stricter sense, is simply the effort to clear up our minds on these and similar "fundamental problems" (as Dr Carus has called them); it does not mean, necessarily, that we know, but that we want to know—that we are "lovers of wisdom"; it implies that we do not wish to go on using words without being sure what we mean by them, that we determine to wake up, and examine and test our thoughts, and see how far they are defensible. Yet, in the deeper and more fundamental work we use the same powers of thought, and follow the same methods, as in attempting to clear up our minds on any subject whatever, no matter how trivial, on which we are misty. If we can get clear ideas about any branch of business we are interested in, it is not beyond our power to attack the problems of what matter is, what life is, what mind is, and of the meaning of the universe itself.

I have said that we *should* face these problems of philosophy, as a part of the general task which ethics gives us of developing the capacities of our nature; but there is one experience in life which almost *forces* us to think—and that is death. No one can lose a friend, with whom he held converse from day to day, and who seemed as real as himself; no one can, when the time comes,

*The substance of an address given to the Young Men's Club of the Chicago Society for Ethical Culture.

†It scarcely needs to be explained that since each has this aim, the ends of each must be respected by all others.

face the thought of his own death, without being made intensely curious as to what death really is, and what it involves. Yet we cannot possibly have clear notions on this point, without having clear notions of what life is, of what man is, of what matter is. Or rather, we may say, every one's notion of death shows what his other notions are—though, of course, they may be uncertain, confused, contradictory, just as one's notion of death may be. It is death, we may say, that makes us all philosophers—or wish to be, so that we may have some clear idea of what that great change really means.

But there are other problems—problems not as to the real nature of existing things, but as to what we ought to do, how we should act. We want clear ideas in both realms. This latter realm we call that of ethics. In the broad sense of the word philosophy, we want a philosophy of ethics—i. e., a set of ideas, clear and mutually consistent, as to what we ought to do. Yet as philosophy is commonly used in the stricter sense, (as bearing on those fundamental problems I have just mentioned) we may speak of ethics as something additional thereto; philosophy being concerned with the ultimate constitution of things and ethics with rules of human action—or, we might equally well call the former theoretical philosophy, and the latter practical philosophy. Now ethics, or practical philosophy, has two divisions, according as we consider man as an individual or as a member of a group; that is, there is personal ethics and there is social ethics. It is of social ethics that I am now to say a few words.

The first problem is, of course, what is the supreme principle in social ethics? From this we have to start. According as we have one view or another here, we shall have varying views as to any special problem. For example,* suppose one holds that the supreme aim is to advance one's interest as much as possible, regardless of others—then, whether the family is considered or industrial society, or the state, the supreme rule will dictate corresponding minor rules in each of these relations; marriage, industry, government will be regarded as so many means of contributing to one's individual interests. True, if every one has this as a supreme aim, there must necessarily be more or less of a conflict between individuals—each one trying to make others contribute to his own ends; and the result may be either a compromise of some sort, or, if some are stronger than the others, a victory and rule of the stronger—or there may be in some degree an unceasing battle. A different supreme principle would, of course, so far as acted on, bring different results and necessitate different minor rules. If one holds that others are entitled to equal regard with himself—if the supreme aim is to serve others equally with himself, then the family will be shaped differently, the industrial order and the political order will be shaped differently (so far, of course, as this aim rules) from what they otherwise would be. In the family, since according to this principle each member aims at the good of the rest as well as his own good, there would be a harmony of interests instead of an antagonism—and in the industrial order and the state, the rule would be not to take advantage of one another, but for each to contribute to the common good; so that no one would have a victory over others simply because he was stronger, nor would there be an occasion for compromise—nor could there be an unceasing battle. The question is, what is the correct first principle? If we take up the problems of social ethics in a philosophical spirit, we must answer this before any other question. It is true that the former of the two principles I have referred to is the one that has had most practical acceptance in the world thus far; but this does not oblige us to say that it is the correct principle—the world may have (so far) gone wrong. As to what is the true principle—this is not for me to say now; I simply point out the problem.

*It is not implied that there may not be other first principles than those here referred to.

And now, as to the special problems. The first is naturally that of the family. Here a number of questions have to be answered. First, why should there be a family at all?—for the mere reproduction of the species may be carried on without this distinct social institution. Persons are being constantly born into the world outside of what we call the family relation. In the early ages of the world there was scarcely more faithfulness between the father and mother of a child than between parents in the animal world. Why should there be any limitation and regulation of the sexual appetite at all? Our instincts are not a sufficient answer to this question. We must justify them, if we desire a reasonable conviction on the matter—unless we take the broad ground that our instincts are infallible, or, at least, the only guide we have. But if it is granted that some kind of family institution is necessary, why must there be that peculiar type of the family with which we are acquainted to-day? Why should not a husband have many wives, or a wife have many husbands? Why is monogamy better than polygamy or polyandry? Authorities cannot settle this question for us, even "sacred" authorities cannot; "sacred" authorities differ—there is no other course than for us to find out the reasons for ourselves.

Second, there is the problem of the industrial order. Next to the birth and nurture of human beings, is the question how they shall subsist? There have been many industrial systems. The greater part of the labor of the world has often been done by slaves. Why was slavery wrong, or was it wrong? We may have our instincts here, too; but what reason lies behind them? According to what principle do we judge slavery? We have a system of industry now based upon freedom. Is it satisfactory? If not, why not? On what grounds do we call it unsatisfactory? Is the trouble with the system, or with the men who compose it—or does the trouble exist only in our minds, because we have unreasonable expectations? It is evident that we have got to know just where the wrong lies (if there is anything wrong), and we must have some idea of what the right would be, before we can intelligently propose any method of curing the wrong, or take any real steps in the direction of what is right. But granted something wrong does exist, there may be more than one way of setting things right. And here the different special reform schemes come in—the Henry George scheme, the socialistic scheme, the anarchistic scheme. Yet, after we have thoroughly understood each plan, as it is proposed by those who advocate it, the question remains, which one shall we adopt ourselves?—or shall we adopt more than one, or shall we adopt none at all, trusting to less radical changes to bring about the improvement we may feel is needed?

Thirdly, there is the problem of the State? Why should there be a state at all? The state, of course, rests ultimately upon force; a law is different from any proposition or measure voluntarily put forth or suggested, in that every one must heed it, whether willing or unwilling (unless, of course, it becomes a dead letter). Now, why should there be this restriction on individual liberty? Is the law simply something that exists, and we must submit to, under penalty of losing our property or our lives—or is there some reason why it should exist, and why we, as reasonable things, should comply with its demands? Is there any one thing that the organized force of the community has the right to prohibit or command, with penalty for non-obedience? And if there is any one thing, where is the line to be drawn as between this and other things? Suppose we grant the state has the right to enforce respect for human life, has it the right to compel us to pay for the cost of making streets, or for the cost of maintaining parks or hospitals or schools? If the basis of taxation for street purposes is the common convenience, why has not the state the right, on the same basis, to establish railroads, and manage them? If it taxes us to support parks for the public health and every one's re-

creation, why not to support bath-houses? Where shall the lines be drawn, and on what principles shall we draw them? It will not do to say we will let things be as they are; for things are continually changing—and moreover, we, by our ignorance and absence of convictions, may allow them to be changed for the worse; we, all of us, whether by our voices, or our failure to make them known, are factors in political change—and it is impossible for us to escape responsibility by saying, we don't know or don't care.

There are other problems of social ethics—but these that I have mentioned will serve as illustrations of the nature of the field. It seems to me of the greatest importance that we have clear, well-grounded convictions on these matters. I have not, in the least, sought to indicate what these convictions should be, but only to show something of what the problems are, and something of the spirit in which we should approach them.

HELPS FOR PHILOSOPHICAL STUDY.

The members of the Young Men's Club, at a recent meeting of which the above paper was read, are all in active business or employment of some kind, and have little time for intellectual pursuits. Three questions were, however, proposed to them (the answers to be given subsequently), and it is hoped that to the first all will say Yes, that many will give the same answer to the second, and a few to the third.

1. Will you agree to read *one serious book* during the year—to be approved by the management of the club?

2. Will you agree to *report* sometime during the year what you have learned from the book?

3. Will you agree to *present a paper* sometime during the year, (to take not less than twenty minutes in reading), giving the results of your thinking on some problem of Philosophy or Social Ethics?

The following books or chapters were recommended, under the separate headings. The list nowise pretends to be complete; indeed, it is felt to be very imperfect. From time to time new recommendations will be added. Mr. Salter (516 North Avenue, Chicago) will be grateful for any suggestions or criticisms that may be sent to him. Only books of recognized standing are desired; and of these the more simple and popular and accessible are to be preferred.

PHILOSOPHY IN GENERAL.

Mansel's *Metaphysics*, Appleton, 351 pages.
W. T. Harris's *Introduction to the Study of Philosophy* [really Harris's philosophy in brief], Appleton, 287 pages.
Carus's *Fundamental Problems*, Open Court Publishing Co., Chicago, 258 pages.

Spencer's *First Principles*, Appleton, 559 pages.
Lotze, *Outline of Metaphysics*, translated by Ladd, Ginn & Co.
Kant's *Critical Philosophy for English Readers*, by Mahaffy and Bernard. MacMillan. Vol. I. Critique of Pure Reason, 389 pages; Vol. II. Prolegomena to any Future Metaphysics, 239 pages.

NATURE OF MATTER.

Huxley, single chapters, On the Physical Basis of Life, and On Descartes's "Discourse," in *Lay Sermons*; on Bishop Berkeley, in *Critiques and Addresses*; on Sensation and the Sensiferous Organs, in *Science and Culture*, Appleton. (110 pages in all.)
Herbert Spencer, *Psychology*, Vol. II, Part VII (pp. 305 to 503), Appleton.

THE MEANING OF LIFE.

Huxley, on The Physical Basis of Life and Spontaneous Generation, in *Lay Sermons*; on The Border Territory between the Animal and the Vegetable Kingdoms, and on The Hypothesis

that Animals are Automata in *Science and Culture*, (136 pages in all.)

Tyndall, on Scientific Materialism, The Scientific Use of the Imagination, Vitality, The Belfast Address, in *Fragments of Science*, Appleton. (149 pages in all.)

Carus, on Is Nature Alive? in *Fundamental Problems*, (24 pages.)

MAN'S NATURE.

Darwin, *Descent of Man*, Appleton, 519 pages.

Ladd, *Physiological Psychology*, Scribner.

PRINCIPLES OF ETHICS.

Kant, Theory of Ethics (comprising the *Critique of Practical Reason*, and other ethical writings), translated by T. K. Abbot, Longmans, Green & Co., N. Y., 438 pages.

Spencer, *Data of Ethics*, Appleton, 288 pages.

S. Mill, *Utilitarianism*.

Gizycki, *A Student's Manual of Ethical Philosophy* (translated by S. Coit), Swan, Sonnenschein & Co., London, 304 pages.

Sidgwick, *Outlines of the History of Ethics*, MacMillan & Co., 271 pages.

Sidgwick, *The Methods of Ethics*, MacMillan (3rd Edition) 503 pages.

Lotze, *Outline of Practical Philosophy*, translated by Ladd, Ginn & Co.

THE FAMILY.

Spencer, *Sociology*, Vol. I, Part III, "The Domestic Relations," 176 pages.

THE STATE.

Spencer, *Sociology*, Vol. II, Part V, "Political Institutions," 438 pages.

John Stuart Mill, *On Liberty*, Osgood & Co., Boston, 223 pages.

INDUSTRY.

John Stuart Mill, *Principles of Political Economy* (recent edition in 1 vol., edited by Laughlin), Appleton, 628 pages. Or,

Henry Fawcett, *A Manual of Political Economy*, MacMillan, 623 pages.

Thomas Kirkup, *An Inquiry Into Socialism*, Longmans, Green & Co., 188 pages.

John Rae, *Contemporary Socialism*, Scribner, 455 pages.

Laurence Gronlund, *The Co-operative Commonwealth*, Lee & Shepard, or, Lovell's Library, 278 pages.

Henry George, *Progress and Poverty*.

W. M. S.

SOME COMMENTS ON MR. FISKE'S "DESTINY OF MAN."

BY DR. PERSIFOR FRAZER.

THIS author's style is always charming; his English pure and clear, yet with all emphasis conceding that, one must confess to a feeling of great disappointment when one lays this book down. He seems to have followed in the beaten track of all the logicians, and rhetoricians who have preceded him; Paley, Archbishop Butler, and the host of moderns. He keeps on the solid ground according to the conditions of heel-and-toe logic until just as the critical point is reached, then leaps in the air whither his readers are asked to follow him. But just before this point is reached, a good deal of *argumentum ad hominem* lash is laid on, the excitement increases, and there you are!

It may be charged that there is more criticism than argument in this and I will therefore state a little more specifically some of my objections. Page sixteen, when speaking of the Suns as 'servants' of the little planets he appears to conclude that life and consciousness only exist where we have observed them. Nothing seems more incredible than this. All 'organic' bodies, i. e., those which we endow

*The Destiny of Man. Viewed in the Light of his Origin. By John Fiske. Fifteenth Edition. Boston: Houghton, Mifflin, 1890.

with life, consist mainly of carbon, hydrogen, nitrogen, oxygen, with a little sulphur and minute traces of almost every element if the search for them is careful enough. Is it an accident that these are just the elements which bathe all objects on the earth's surface, and which are most easily arrived at to repair waste? Moreover these are bodies whose compounds at a slightly elevated temperature would be destroyed. At the temperature of the surface of the Sun they would be volatilized. But is there any good reason why consciousness should clothe certain few elements alone, and only one of the three familiar states of matter? As consciousness and life are found at the earth's surface adapted to the conditions there, why not at the Sun's surface or in inter-stellar space? (See on this subject "Speculations on Protoplasm" by the writer. American Naturalist, July, 1879.) But one of the chief weaknesses of Mr. Fiske's argument begins on page 30, and permeates his essay to the end. His contention is that when variation, with survival if adapted to environment, began to increase the size and functions of the brain, then this *homo* was finally elected as the ruler of the world, and it became impossible for any other animal to supplant him here. In the first place he is clearly in error as to the fact that "zoological change" has ceased and that psychical (or mental) change has taken its place in man. Whatever may be the mental superiority of man, the change in his structure will follow change of the conditions of his environment just as fast as in the lowest and least specialized creatures. If our planet should perceptibly chill, the mechanism of man must be altered to support life with less heat or he will perish; no matter how highly specialized his brain is. In fact it is the universal testimony of the rocks that the more highly specialized the animal, the more quickly it succumbs to any change of its outward conditions. The error of Dr. Fiske here is in comparing the infinitesimal time during which man has developed into what we know him to be, with the countless æons which must pass before external conditions are sufficiently altered to put a severe strain on existing types. It is entirely unjustifiable to say (page 31, line 11), that Darwin represents man as a permanent or indeed any kind of a goal toward which Evolution was striving.

The crustacean, the fish, the bird, and the mammal have each in its turn been such a temporary "goal." None has been a resting place, nor is it likely that man will be. On the same page we indeed "suddenly arrive at the conclusion that Man seems now more clearly than ever the chief among God's creatures. Whence this very unceremonious introduction of Creator and creature into an argument professing to be evolutionary and inductive?"

On page 32 Mr. Fiske makes most unwarranted use of what he is pleased to call "mastering the Darwinian theory," reaching a climax of undistributed middle at the close of the paragraph.

In Chapter V, page 42, his statement of what we know of the correlation of physical forces is as wild as any utterance of the Rev. Jasper. We cannot know what the state of consciousness cannot be the product of, any more than we know what it is the product of. We know nothing about it at all; but it is more probable, on the doctrine of chances, to be the result of the interaction of material particles in connection with which we always observe it, than "effluence from Godhood" (whatever that may be) which we have never experienced, or observed.

It seems almost ridiculous to add that this collocation of words "is a view most consonant with the present state of our knowledge," or even of our ignorance.

It is unworthy of so profound a thinker to coolly assert that one generation of dumb beasts is after all very like another (page 52, 2d ¶), and most highly improbable besides. He concludes that step by step from the amoeba through the myriads of forms of "dumb beasts" nature was approaching her goal "Man," yet all these generations he would have very much alike.

I pass over the hyperbole at the close of Chapter VI as a rhe-

torical finish like the rhymed couplets of Shakspeare. It must not be taken too seriously. In Chapter VII and further Mr. Fiske continually repeats the error of natural selection confining its operations to the surface of the cerebrum in man. It never did, and it probably never can or will do this.

His view of the perfection of the eye as an optical instrument differs entirely from that of the specialists who are the world's authorities on this subject. He exclaims (page 60), "In a very deep sense all human science is but the increment of the power of the eye, and all human art is but the increment of the power of the hand." Consider mathematics and logic for the first; and poetry for the second.

The concluding phrase of Chapter IX is a dwarfing of one of the most magnificent of conceptions to a lame and impotent conclusion. It is very ingenious to suppose that altruism was the result of the tender care of their young by animals, but it is not an established fact. Many animals and among them certain anthropoids eat their young. Still the case might be as stated in spite of this, but how shall we prove it? On page 92 he points to the growing power of the principle of federation, and instances England, Switzerland, and the United States as examples of it, explaining the ill success of French colonization by the fact that France "incorporates." But this is not the case with France's fully secured colonies, to wit, Algeria, which is duly represented in the French Chamber. It is singular in this connection that not a word is said of the greatest "incorporator" the world has ever seen—Russia, though her progress in absorbing territory exceeds that of any other,—indeed all other nations.

In Chapter XIV, page 97, the operation of natural selection is said to have diminished in the case of Man by the operation of social conditions. But this operation is nothing more than a variation of Natural Selection through the wants and tastes which have been engendered by civilization. "Natural Selection always works through death" (page 97). On the contrary, it always works through new forms of life, and it is by no means always the case that the outstripped species is extirpated. It simply cedes its place to the more favored and continues its career with more or less progress, retrogression, or stability according to circumstances.

Some fishes which played so prominent a part in Devonian time exist to the present day. In fact every form of animal life which exists is closely related to one of the many stages through which the progenitors of Man have passed. The manly protest (page 102) against the detractors of the Freethinker does the author credit. Chapter XVI, page 109, he again makes the error of specifying what the study of molecular physics teaches us that thought and feeling "cannot possibly be." The study of molecular physics is, like all other studies of the effects of Nature's laws, an inductive science; and the establishment of a general negation by an inductive science is a contradiction in terms. And now for the final step for which we have been impatiently waiting: the link which is to bind any kind of human philosophy with a belief in a hereafter! On this subject the author (page 111) "has no doubt that men will continue in the future as in the past to cherish faith in a life beyond the grave." Very likely they will; for a long time at least; but on what grounds? This is what concerns us most. A "broad common-sense view" (i. e., his view) has to be called in. The remainder of this work will not bear any dispassionate analysis. "The doctrine of evolution does not allow us to take the Atheistic view." Why not? It is conceded that it does not teach it, but neither does it teach any other. "We have an irresistible belief" (page 115), "because otherwise we would be put to permanent intellectual confusion." And what then? "What we call death may be," etc., etc. So it may, but then again it may not be. If this is the outcome of the essay why not stop here and confess that the author is an unknower (or agnostic)? "I can see no insuperable obstacle in the notion that" . . . "this divine spark"

(the soul) "may have acquired sufficient concentration and steadiness" (?) "to survive the wreck of material forms and endure forever." Neither can I, provided that there is a scintilla of evidence for it, but is there? In this connection it is pertinent to inquire what has become of the ancestors of our race who were otherwise human but in whom this spark had not become quite sufficiently "concentrated" and "steady"? It is most true (page 118) that there are "many minds inaccessible to the class of considerations here alleged" and the trouble is that the number is continually growing.

March 29, 1890.

BOOK REVIEWS.

THE SIGNS OF THE TIMES. By *M. J. Savage*, Boston: Geo. H. Ellis & Co., 1889.

HELPS FOR DAILY LIVING. By *M. J. Savage*, Boston: Geo. H. Ellis & Co., 1889.

The Rev. Mr. Savage has dedicated the two works whose title appear above, respectively to "the increasing number in all sects who are coming to discern the signs of the times more and more clearly," and to "all those who knowing they can help but little are still ready to help all they can." The collection called "Signs of the Times," is made up of the following discourses: "Break-up of the Old Orthodoxy"; "The Roman Church"; "Liberal Orthodoxy"; "Unitarianism"; "Free Religion and Ethical Culture"; "Scientific Materialism"; "Ingersollism"; "Religious Reaction"; "Mind Cure"; "Spiritualism"; "Break-ups that Mean Advance"; and "The New City of God." They are sermons—homiletic in form and sentiment. And they possess many of the merits and many of the faults of that species of discourse. There is an indefiniteness, a perplexing hesitancy at times in the formulation of problems; so much so that we are often in doubt what really is the exact view that the author takes. There is a whole-souled and frank liberalism in the treatment of every topic, which often, we think, leads to the acceptance of that which should be rejected. Mr. Savage, however, is not writing a textbook, nor an encyclopedia of social and religious philosophy, but a work that appeals chiefly to the heart and the sentiment, and, indirectly, to the understanding; it is in this direction that his power is best, and in this that he exhibits such commendable earnestness, hopefulness, and faith in humanity. "Science, philosophy, literature, poetry, painting, sculpture, music," he says, "all these things were once ministers and servants of the Church. They shall be again; for, when humanity has grasped the idea that religion is the grandest concern of the human brain as well as of the human heart, that it means the science of all life in this world and forevermore, then the church will organize itself round these magnificent ideas, and will call into its service once more all science, all literature, all art, all music, all poetry, and so assert and make good its claim to the utmost reverence and love of all mankind." That is his view of the new religion. And, again, in the "New City of God": "No one any longer believes that this new condition of humanity is to come by any divine interposition, suddenly wrought among us, from without. We all now believe in evolution, in human growth, in the possibility of a development from our present condition into something that is higher and better. . . . Where, then, are we to look for our ideal city? Not in the heavens, but growing, by processes of natural development here upon the earth." That is his view of practical ethics.

The book "Helps for Daily Living," contains many practical, consolatory, and enlightened suggestions for our conduct in life.

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THE 'WORKS AND DAYS' OF MOSES: Or a Critical Dissertation on the first chapter of Genesis. By *Sir Philip Ferring*, Bart.

London: Longmans, Green & Co. Chicago: A. C. McClurg & Co.

The task which Sir Philip Ferring has set himself, in this modest little volume, is the proof that the Mosaic account of creation is not at variance with the handiwork of God, as discoverable by science in the phenomenal universe. The author says there is a scriptural law of interpretation, which is different from the secular law of interpretation; this scriptural law must alone be applied to books that are revealed, and the Pentateuch, the author says, was revealed. This is the assumption; and here lies the test that gives or takes from the book its value. In the examination of that point—or rather, in the reference to it, for it is not examined—Sir Philip is not so strong as he is in the employment of his spiritual law of interpretation, in which work he displays much good sense and penetration. Is it a proof of the divine inspiration of the Pentateuch that the Mosaic cosmogony surpasses all others in simplicity, consistency, tone, and wisdom? Sir Philip thinks so.

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THE LAW OF POPULATION. Its Consequences and its Bearing upon Human Conduct and Morals. By *Annie Besant*. Fair Play Publishing Co.: Valley Falls, Kansas. Price 15 and 30 cents.

The pamphlet of Mrs. Besant has had a very large sale. The present American edition is printed from the thirty-fifth thousand, English edition. It is a clear and convincing presentation of the facts of over-population, the causes that lead to it, and the remedies that are to prevent it. Especially in the chapter "Its (the law of population's) Bearing upon Human Conduct and Morals," does the value of the book lie; where Mrs. Besant proposes the exercise of conjugal prudence as a check upon the increase of families. In the statement of certain abstract principles we are at variance with Mrs. Besant; as, for example, that morality is "the greatest good of the greatest number"—a principle that even if philosophically unobjectionable could at best be but a criterion of political expediency, and not of individual conduct. But these questions are foreign to our present purpose. The pamphlet should be widely read.

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For March the *Revue Philosophique* opens with an article by E. de Roberty, *L'Evolution de la Philosophie*, following which are: *L'Evolutionisme des Idées-Forces* (Part II, *Les Etats de Conscience Comme Facteurs de l'Evolution*), by A. Fouillée; and *Recherches sur les Mouvements chez quelques Jeunes Enfants*, by M. Alfred Binet. The usual critical and exhaustive reviews close the number. (Alcan, 108 Boulevard Street, Germain, Paris.)

NOTES.

The American Academy of Political and Social Science was formed in Philadelphia, December 14, 1889, for the purpose of promoting the Political and Social Sciences. Its chief object will be the development of those aspects of the Political and Social Sciences which are either entirely omitted from the programmes of other societies, or which do not at present receive the attention they deserve. A special effort will be made to collect and publish material which will be of use to students and which does not now reach the public in any systematic way, as, for example, the texts in English of the constitutions of leading foreign countries; regular accounts of current instruction in Political and Social topics at home and abroad; descriptive bibliographies; discussions of Municipal Government, etc. Any one may become a member on being approved by the Council and paying the Annual or Life Membership Fee. (\$5.00, and \$100 respectively.) Members are entitled to receive the regular publications of the Academy, submit papers and communications, and attend and take part in all scientific meetings. (Address, Station B., Phila.)

The Open Court.

A WEEKLY JOURNAL

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THE ORIGIN OF LANGUAGE.*

BY LUDWIG NOIRE.

"THE progression of variety from unity," says Geiger, "seems to be the great fundamental law of all development of nature and of mind. This law, in language also, leads us back to a very insignificant germ, to a primitive sound, which expressed the infinitesimally limited and exclusive subject-matter that man then took notice of or beheld with interest, and out of which the whole wealth of language, nay—as I am unhesitatingly convinced—of all languages, through a series of untold millenniums, has been slowly unfolded."

The great merit of L. Geiger—who unfortunately was too early lost to science—is that of having shown how human reason and language were originally contained in one and the same germ; that we cannot say that reason created language, but that the contrary is true, that reason was gradually matured and strengthened through the instrumentality of the representative signs of sensory perception; that, accordingly, the word was beyond question the element first in point of time, and that more universal, more correct, more clear, and more conscious ideas were first attained and formed through words, and after a long course of development led through words to the present state of mature rational thought.

The childish and anthropomorphic view, that God had said to Adam, "This is a dog, This is an elephant," still held the minds of men captive in the eighteenth century, with the single difference, that the philosophers of that day put human reason in the place of God, and imagined that men by a kind of conventional agreement or pact had given names to things—in short, that they had *invented* language. As if an inventive act of this character did not demand a prodigious power of mind—a degree of intellect and wisdom that must have been infinitely greater than that present possessed by the whole human race! It is a fundamental error of human thinking, that we are naturally predisposed to attribute conscious purpose, reflection, and knowledge, which now mainly guide us in our daily affairs, universally to human acts, and that we attempt to explain the latter by the

former. Ceres alone foresaw the stupendous results that were to follow the insignificant beginnings of agriculture. Copernicus did not think of the dangerous consequences that his new doctrine involved for Christianity. And the historical Luther,—if he were to return at the present day to earth,—would break out in violent anger at the constantly extending emancipation of the human mind that has sprung from his original reformatory ideas, and at the progress of rational thought, subversive of all positive creed. The result of a course of development is frequently as different from its point of origination as the flowering plant from the seed out of which it has grown.

HERDER'S THEORY.

The first to rise well above this anthropomorphic view was *Herder*, whose divinatory genius in so many other fields discerned truths that science only later demonstrated by the help of accumulations of material, and who, even where he erred, never failed to cast forth the most pregnant suggestions. The fundamental idea of his prize-essay *Ueber den Ursprung der Sprache* (Upon the Origin of Language), is substantially this: "Man," says he, "supplies proof of reflection, when, from out of the hovering dream of images that flit before his senses he has the power to collect himself into a moment of wakefulness, to dwell voluntarily upon some particular image, to survey it in a brighter and steadier light, and to abstract from it certain characteristics that establish that *this* is *this* object and no other." This he illustrates by the following example: "A man sees, for instance, a lamb. It passes, as an image, differently before his vision than it does before that of other animals. Whenever man is placed so that he must know a sheep, he is not disturbed by any instinct (as the wolf or the lion); the sheep stands there exactly and entirely as represented by his senses. White, smooth, woolly. His thoughtfully operating mind seeks for a characteristic. The sheep *bleats*. The characteristic is found. The inner sense is at work. The bleating—that which produced the strongest impression upon the mind, that which sprang forth and disengaged itself from all other qualities accessible by sight and touch—that remains with the mind. The sheep, let us say, returns. White, smooth, woolly. Our man

*From *Die Welt als Entwicklung des Geistes*, by Ludwig Noire, Chap. IX, Part III, Leipzig: Veit & Comp. Translated by J.K.V.

looks, touches, meditates, seeks characteristics. The sheep bleats; and now he recognizes it. 'Thou art the Bleating One!' he feels inwardly; he has humanly recognized it, for he has distinctly recognized it; that is, recognized it by, and called it by a characteristic. By a *characteristic*, a *mark*! And what else is this than an inner *mark-word*, a verbal cue? He recognized the sheep by its bleating. This was the comprehended token by which the mind clearly hit upon an idea. What else is this than a word? And what is all human language but a collection of such words?"

This theory Max Müller has called the Bow-wow theory, and rejected it.

It cannot be denied that as an hypothesis of the origin of language there is a good deal of truth contained in Herder's statement of things. The most important points to be noted are, that it (1) explains how a visual image or percept is transformed into the phonetic word; and that (2) it makes the creation of language first appear as attached primarily to single characteristic marks.

The weak points of this view lie in the facts, (1) that Herder leaves the origin of the word as dependent upon the necessity of communication, entirely unnoticed; and it is surely to be assumed that impulse of feeling and the necessity of communication both potentially influenced the origin of the first word; and (2) that the so-called onomatopoeic creation of language, that is, the designation of things after the sounds they make, has not as yet been confirmed by any extant language. Single words, like *cuckoo*, and the like, prove nothing; and many that appear to us as imitations can be traced back to other roots that show no imitational origin whatsoever. All the languages we know reveal, on the contrary, an inner conceptual connection between words that denote some crying, sounding object, and primitive roots designating some *human* activity. Herder himself, at a later period, gave up his theory of imitations of sound, and again adopted that of the revelation of language. His work on the "Origin of Language," however, still remains the earliest really philosophical work on the subject, and may claim the merit of having pointed out the true road upon which an explanation is to be sought.

THE INTERJECTIONAL THEORY.

Another attempt at explanation is that which sought to derive language from interjections, and which Max Müller therefore calls the Pooh-pooh theory. This also possesses a certain degree of probability, for account is taken herein of the necessity of giving vent to inner emotion by sounds and ejaculations, as also of the endeavor to communicate with others, and above all, of the example of animals,

whose neighing, barking, roaring, crowing might seem to represent a prototype—an abortive effort to acquire phonetic speech. But in the investigation of known human languages this principle, unfortunately, does not find any kind of confirmation; no more so than does the attempt to regard the separate letters or sounds of a word as symbolical vehicles of its meaning—as the *w* in *wind* and *wave*, the *l* in *fluo*, *light*, *love*, and so forth. Serious philological science regards all these attempts as failures, and at best as ingenious diversions.

MAX MÜLLER'S THEORY.

The theory propounded by Max Müller* himself, which has been jocosely called the Ding-dong theory, is even less tenable. This distinguished scholar thinks, that to every being was granted a peculiar typical sound, that in man originally there existed a most copious phonetic world—a real spring-time of speech—that tunelessly responded to the impressions of the outside world. This is a true *petitio principii*, and explains really nothing. For we are still compelled to ask how and when this world of sound passed into man, and how man came to apply it to things; and we should be obliged constantly to fall back to the stage at which the first sound burst forth. And then we should be no farther ahead than before.

Still it is quite easy to understand why so eminent a scholar as Max Müller should have hit upon this singular idea. He was probably led astray by his observation of children, to whom we usually turn when in search of information concerning anything primitively human. Now, it is true, daily experience teaches that there exists in children an impulse to speech, an incitation to language, and that they early strive to call objects by the names they have heard. And it has frequently been my experience that highly intelligent men, to whom I had propounded Geiger's theory of the priority of words to concepts, at once resorted to the following counter-argument: "But look at children. No sooner do they perceive things than they designate them by words of their own creation, which bear scarcely any similarity to those which have been taught them. What is that but an awakening of the *instinct of speech*?" This, it must be admitted, is true. But the genuine science of to-day is no longer satisfied with reasoning of this kind. It demands an explanation of the word; it demands an account of the origin of the affair.

The speech-instinct of the child is the repetition of that long line of development which we must assume proceeded from the origin of language up to the present day. So long as the child does not feel this instinct, so long as it merely contemplates, touches,

* We shall also publish, at the close of this series of translations, some extracts from Max Müller's works in criticism of Noiré.

cries, asks for food, and so on, up to that time it represents the period of speechless humanity,—the time at which human nature had not as yet separated from animal nature. And the fact, too, that the child even during this period, before it begins to form concepts, actually evinces an interest in *objects*, grasps at them, and throws them away, this fact might seem to suggest that even speechless humanity handled certain working-tools of its own. But the language-instinct is a thing ingrafted in the child during a long succession of generations. Our scientific curiosity, however, asks for information concerning a time shrouded in the deepest darkness, when the "word was made flesh, and dwelt among us," when instinctive life first began to pass into the clear consciousness of speaking humanity.

GEIGER'S RESEARCHES.

To Geiger the further honor is due of having shown that the oldest root-words, at least as far as they can be traced back, express a human act, a human gesture, and he justly observes that this must probably have been that which was the *most interesting* to man, that of which he *first had knowledge*, which most strongly riveted his *attention*, and *sympathetically echoed in his breast*. The last-mentioned fact is to be particularly noted. In our intercourse with our fellow-beings our countenance gradually assumes an expression like that of the human counterpart before us; tears and laughter are contagious; when we see a person in imminent danger of life, we ourselves anxiously go through the very movements which the person would have to make to escape from the danger he is in: the imitation of human action is so natural to us that we immediately feel and reproduce the cheerful expression of joy, the convulsion and depression of pain, as well as scorn and menace. In view of this Geiger believes that the first cry of language must have been an aping reflex of the face of another accompanied—from the fact that it was the result of emotion—by sound. (Here, of course, we would have had visual percept and speech-sound in one.) And he held that a sound of this kind, periodically repeated, must have recalled to mind a definite perception, sensation, or visual image, and that thus the first word, of whose contents, of course, we can have no idea, might have originated.

Be this as it may, it remains indisputable that everywhere in the designations of things we meet with human action as that which first made the object in question interesting. This human activity, is, of course, as yet entirely identical with animal activity. The Greek *δέρα*, to flay, counts among its descendants *δέρμα*, skin, *δόνυ*, wood, *δρῦς*, tree, and the English *tree*. Skin is that which is *pulled off*; wood that which is *stripped of bark*; and so tree. This same law, with

wonderful consistency, appears also in a number of words that, judging them by their meaning at the present day, scarcely seem to present any connection whatsoever. *Night*, through the notion dark, black, is carried back to the Sanskrit root *ang*, Latin *ungō*, to dye, to smear; *ground* and *terra* to a root denoting to grind, to crumble; *corn* denotes something that has been husked; *thunder* (a word that certainly sounds onomatopoeitic) must be referred, according to Max Müller, to the Sanskrit root *tan*, to stretch, and is akin to *tone* or the sound peculiar to a stretched cord. In the same manner *tener*, tender, must be derived from thin, and the latter again from the fact of tension. *Schreiben*, γράφω, and *scribere*, as well as the English *write* and the German *Riss*, are identical with a root denoting *ritsen*, to scratch. From the root *da*, to bind, are derived words of the following meanings: yoke, gird, husband, twins, sister, house, and innumerable others. Tools, language designates by words that correspond to the human acts which they promote; they are symbolized, so to speak, *actively*. Scissors, hatchets, and saws are things that shear (Swedish *skära*, sicken), hack, and saw. Everywhere, in all the formations of words with which we are familiar, the conceptual element is seen to prevail, but nowhere do we find direct imitation of the sounds of nature. The names of the majority of animals and plants designate the creatures and things to which they refer, by *color*; and almost in all languages we recognize as the most primitive roots, human and animal acts symbolized in the form of some characteristic gesture or posture; and even in historical times we find, that the development and growth of language follow exactly the same course. The abstract *figure* is traceable to a word that denotes to *knead* a soft clay. The beautiful German word *Dichter* (poet) suggests the primitive untutored bard, who was originally wont to *dictate* to a scribe the words of his own invention. And, moreover, if the imitation of the sounds of nature had originally been the principle according to which words were formed, it certainly would have occupied an extensive place in languages, and would have long remained perceptible and continued perhaps up to the present day in active operation.

It is unmistakable that we have approached through this explanation considerably nearer to the dark depths from which the fountain of speech first bubbled forth. The question further,—previously touched upon,—as to whether man first possessed tools or speech, Geiger decides in favor of the latter; and he bases his proof upon the fact, that the names of tools and of the results they bring about, are expressed by roots that denote human physical acts; hence, that all words denoting grinding (*mahlen*), milling, and the like, were originally connected with *mal*, *mar* (*mordeo*), which

meant to bruise, to crush with the fingers, and probably also to crush with the teeth. *Sculpo* to cut out with a chisel, is a collateral form of *scalpo*, which originally meant to scratch with the nails. The root *ve*, the basis of our *weave*, is traced back by Geiger, with a reference to *vimen*, withe (willow), to the oldest practiced art; namely, the twisting of branches into lodge-nests for primitive man, which afterwards led to weaving or plaiting, an art possessed by all savage tribes.

But I must confess that to my mind this last argument possesses very little weight. Man, it is true, did not have complicated, or even perfect, tools before the possession of speech,—perhaps not even mill-stones; but I am inclined to doubt, whether, notwithstanding this fact, he might not have designated crushing with *stones* and *teeth* interchangeably by the same root, as well as all scraping with the hands and a stone, which latter in this case would merely be a part of the hand.

There is also something far-fetched about Geiger's hypothesis respecting the origin of the first word. His sympathetic aping reflection of a gesture with accompanying speech-sound, I must admit, seems a rather bold abstraction, in which Geiger manifestly wished to comprise the three factors met with in the oldest roots: which are (1) the phonetic word, (2) the visual percept, and (3) human posture or gesture as the expression of an act.

NOIRE'S CONCEPTION.

Now I take it that man, who like the ape and other animals is a social being, very early acquired a power of communication, that is, a language of gesture or attitude. Nothing stands in the way of such an assumption, since we find this faculty very distinctly marked and extensively represented throughout the entire animal kingdom. Animals are trained to the expression of significant gestures, as birds are to song, which is at the same time the expression of an inner emotion and a kind of communication, being intended either to allure the female, or to entertain the brooding bird. It is therefore not at all impossible, that in the case of primeval men, living gregariously, gestures might have been developed with a definite conceptual content, established as such, and transmitted by course of training to after generations. We must, of course, conceive these gestures as a summons to some appointed act or task, as we find to be actually the case with ants, termites, bees, etc. It would suffice now for some vehement animated gesticulatory action of this kind to be accompanied in every instance by a peculiar sound (let us call to mind, for example, the many different sounds by which a dog accompanies his signs of joy, grief, submission, repentance, and impatience)—and in consequence thereof this gesture

could very well be recalled to mind by the sound; while, following the law of development, the former would gradually recede, and the latter ultimately attain absolute supremacy. As stated this is highly *possible*, and it increases in probability when we take note of the fact that savage nations, ignorant persons, and people who do not perfectly understand a language, are always wont to emphasize their words by lively gesticulation.

A *possible* origin of this kind ought to satisfy completely our inquisitiveness; agreeably to what Dugald Stewart, also quoted by M. Müller, justly maintains: "In examining the history of mankind, as well as in 'examining the phenomena of the material world, 'when we cannot trace the process by which an event 'has been produced, it is often of importance to be 'able to show how it *may have been* produced by 'natural causes. Thus, although it is impossible to 'determine with certainty what the steps were by 'which any particular language was formed, yet if 'we can show, from the known principles of human 'nature, how all its various parts *might* gradually 'have arisen, the mind is not only to a certain degree 'satisfied, but a check is given to that indolent philosophy which refers to a miracle whatever appears 'ances, both in the natural and moral worlds, it is un-'able to explain."

Any one who will survey the successive development of things as they start from the simplest elements, and through continued combinations effected by the influence of the external world, early deviate so much from their origin that the latter is scarcely longer recognizable, will surely admit that the most cutting sneer to be levelled at speculative philosophy, in its confidence of victory, would be to demand it to construct a camel *a priori*. But empiric historical science has also cause to be modest, notwithstanding that it follows the much surer road, constantly controlled by present events, of inference from that which now exists to what before existed; in which process it employs as basis the solid foundation of innumerable facts, upon which it constructs ever narrowing stages reaching up to an apex of unity, while the speculative method endeavors to rest its complete structure upon that apex.

I shall try to show by an example, how abundantly also inductive science has cause to be satisfied with the possibility of explanation. I shall suppose that after the lapse of a few thousand years literary tradition had suffered an interruption, and that the world was entirely left in the dark concerning the scientific researches of our present epoch. Electricity will, by that time, have become of enormous importance, and found a wide application in all the relations of life. Let us suppose now that some historian starts the

question (as the case is in our own time with the question of fire) of how and in what manner humanity at first obtained possession and knowledge of this wonderful natural agency. Does anybody really fancy that the historian by continuous and successive inferences would ultimately light upon the fact that once upon a time a certain physicist had hung up frog-legs by iron hooks upon copper railings! Certainly not. But a thousand possibilities will occur to him, and with these he will rest satisfied.

I shall now, in addition to those above set forth, submit another hypothesis, which also conforms to experience as deduced from animal life, and the possibility of which will hardly be contested by any one.

If we examine the phonetic utterances of the animal world, we shall find underlying the same a variety of inner impulses, but always the endeavor to make these impulses intelligible to others. We find, principally, three kinds of sounds; viz.—

1. *Calls of Allurement or Summons.* These are an expression of emotion, accompanied by an obscure percept, and they aim at influencing the will and acts of a kindred being.

2. *War-Cries.* Also the expression of emotion. They endeavor to arouse fear and dismay in an enemy.

3. *Calls of Warning.* Only among social animals. Emotion coöperates. The percept prevails. Endeavor to work upon the will of others by arousing a similar percept.

It is not difficult to discern in these three categories the sub-soil of human speech. All three have this in common with one another, that they spring from the inner world of emotion, and strive in turn to awaken emotion—the first and third a kindred, and the second an opposite emotion. In the first there is present also either an obscure percept, as, for instance, that of a female, or a still clearer one, as when the hen calls her brood to newly-discovered food. So too, in the third, is the percept of impending danger, which by the cry is also excited in distant or dispersed companions.

The first human sound that deserved the name of word, could not have differed from these animal sounds except by a higher degree of luminousness in the percepts or images which accompanied it and were awakened by it. Discipline must have helped to bring it about that such a sound—just as the notes of a bird—upon being often repeated, became a kind of representative sign, which along with the sensation also excited the faint image. Such sounds are interjections. But interjections are not adapted to the formation of language, because the emotional element still prevails in them to such an extent that clear and tranquil percepts cannot form, and, therefore, cannot originate from the same. On the other hand, we are

able to imagine many possible ways in which a sound as yet involved in the animal stage of development could become the representative of a definite, independent percept.

Should any one interpose, that for such a huge edifice my hypothesis assumes a much too narrow basis, let him call to mind the example I cited above, in which, from the twitching of a frog's leg through continuous combinations and mental efforts the mysterious, hardly dreamed of domain of electricity was drawn within the reach of human knowledge and power. What we call chance has demonstrably played a principal rôle at the beginning of the most important and difficult advances of human civilization. Such is the case with the acquisition of the agency of fire, which, like tools, language, and religion, constitutes a truly distinctive characteristic of man; how variously may we not imagine its origin to have been, and how many accidents may not have borne an active share in that origin! At all events, the task required human energy, and, as Geiger says, we have reason to admire the boldness that accomplished that feat, never before achieved, when man, for the first time, approached the dreaded flame and carried aloft over the earth the burning log of wood—an inspired act without precedent in the animal world, and of immeasurable consequence to the development of human civilization. And if we compare the oldest form of implement for the production of fire by friction—as it is still found among savage tribes, and even among civilized nations in certain religious practices—which was a simple piece of wood bored into a softer piece and set on fire by continuous twirling, when we compare such an implement with the holes that are found bored in the same way in stone-axes, we are readily led to assume that accident was the origin of this acquisition, and that from this single thing and its further retention and application all the rest resulted.

[TO BE CONTINUED.]

THE LOGIC OF VERIFICATION.

BY JOHN DEWEY.

IN a recent article in *The Open Court* having the title "Is Logic a Dualistic Science?" I attempted to show as against Mr. Venn's recent work that logical processes do not deal with the comparison of ideas, on the one hand, with perceptions on the other; the reason, in general, being that logical processes enter into the structure of perceptions as well as of ideas, and that, therefore, such processes could not be considered as beginning with the comparison of ready-made perceptions and conceptions. The opinion was then advanced that there is but one world of knowledge, whether in the form of perceptions or of ideas, and that this world is logical all the way through.

To this doctrine an objection somewhat after this fashion might be raised: Such a conception makes the process of verification impossible. If there is but one realm of knowledge, what is the standard of truth? with what shall we compare our *ideas* in order to verify them? If logic has a dualistic basis, the question is easily answered; on one hand, there is the world of conceptions of ideas, on the other, the world of perceptions, of facts. And we test our ideas by comparing them with facts. But upon the theory of a single realm of knowledge, logical throughout, no such comparison and testing is possible. It seems upon this theory that the only criterion of truth is the consistency of ideas with themselves, and every one knows that ideas may be self-consistent, and yet untrue, or even highly absurd.

Undoubtedly the objection points to a serious difficulty, one which must be reckoned with. I shall not attempt to evade it by denying that there is a relative distinction at least, between idea and fact. I shall rather ask what does this distinction of idea and fact (speaking always from the logical point of view) mean and how does it arise? If an objection lies against the unitary theory advanced, a still stronger objection lies against the dualistic theory. This objection I may state as follows: What is this world of facts by comparison with which we test our ideas? Is it the real, the true world? This supposes that this real world, the actual facts, are known. But if they are known, so that they can afford the standard of verification, why do we go to the trouble of forming a theory, of making a hypothesis? If we already know the facts, it certainly seems a waste of energy and of time to frame guesses, to elaborate ideas simply for the sake of going through the meaningless process of seeing whether or not they agree with a truth already perfectly known. It is evident that we only form a theory, or entertain ideas, as distinguished from facts, when we are not in possession of the truth, when we are in search of it. *Per contra*, if the facts by which we are to test our theory are not the real facts but the facts as they *seem* to be, the facts as *previously* known, there is another difficulty. It is just because we suspected these apparent facts of not being real, that we framed a theory which should get nearer to the reality of the case. It would certainly be a curious operation to test our theory by a standard whose discrediting had led to the formation of the theory. This then is the dilemma with which I would confront the dualistic notion. If the standard by which we are to test our ideas is the real fact, the actual truth, then, by the necessity of the case, the standard is unknown; if the standard is facts as they seem to be, as already apprehended, it is worthless. The only standard of value is out of reach; the attainable standard is no

standard at all. In either case, verification would seem to be an impossible process.

I hope this result may at least induce us to consider the other point of view; the notion that we do not have ideas separate from facts, which we proceed to compare one with the other, but that the (undoubted) distinction between idea and fact is itself logical, brought about by and within logical processes.

Let me begin with a well-known psychological fact—that which Bain calls “primitive credulity.” So far as we can judge, early childhood makes no difference between ideas and facts. It does not recognize its ideas *as* ideas, but it at once projects them into the outer realm. Suggest an idea to a baby, by saying some word which he recognizes, the name of a known object or person, and the baby looks around him to see that object. A child's mind is like an animal's; it is intensely practical. Ideas, as such, do not appeal to it. The thing, the action, is what the child is after. A baby's inability to entertain a question, or even after it can answer questions relating directly to fact, its inability to consider questions involving a ‘whether this or that,’ testify to its incapacity to hold an idea in its ideal aspect. What is it that breaks up this primitive intellectual innocence; this immediate transformation of idea into fact? Apparently, it is the disappointment of expectation, at first, and then as a further development of this, the dim perception of contradictions. The baby, when he hears the word ‘Papa,’ looks about him and does not see his father; probably, at first, the new idea, what he actually sees, simply expels the other idea. The idea of father is not retained before the mind long enough for the contradiction to be perceived. But there is at least the shock of unrealized expectation, and the feeling of the necessary adjustment to the new idea. As the mind's power of holding its ideas fixed becomes greater, the new idea will not simply drive out the other, substituting itself for it, but will struggle with it for possession of the mind. Now the actual idea contradicts the idea which the mind is endeavoring to project into actuality; it prevents this projection. It is, as it seems to me, this two-fold process: on one hand, the retaining of an idea before the mind, on the other, its repulsion from actual fact through a stronger contradictory idea, which leads the mind to the hitherto unentertained recognition of an idea as only ideal, as a *mere* idea.

This analysis seems to me to be verified by the phenomena of illiterate and savage life, of dreams, and of hypnotism, so far as we can appeal to that unsettled sphere. The difficulty savages have of discriminating ideas from facts is a commonplace of ethnology. The absence of contradictory facts retained in the mind leads us to take everything we

dream as real, while we dream it. The savage continues to think of it as real when he awakes; it is only something that happened in another region of experience, when the soul sallied forth from the body. And while I would not speak dogmatically regarding hypnotism, Janet and others seem to have made it probable that its essential phenomenon is *dissociation*, the severing of the connections between groups of ideas united in ordinary sense-perception and thought. These connections being broken down, the mind experiences no contradiction on being told while in a room of a house that it is in a boat upon the ocean. The idea, having no other body of ideas over against which it is set, is taken, as in childhood, for a fact.

But to return to the argument. The mind learns through the contradictions existing between its ideas that not all can be projected as facts; some must be dismissed as false, or, at least, retained only tentatively as *possible* facts. It is this tentative holding of an idea which constitutes the logical distinction of idea and fact. The fact is the idea which nothing contradicts, which harmonizes with other ideas, which allows the mind free play and economical movement. The idea is at first the fact about which difficulties are felt, which opposes a barrier to the mind's movement, and which, if not in opposition to other facts, is, at least, in opposition to *apparent* facts. In a word, the distinction between 'idea' and 'fact' arises along with the distinction between real and apparent fact.

Let us test this result by considering scientific hypothesis. The mind frames a hypothesis or theory, because it is dissatisfied with its present (or rather former) judgments. The ideas which it has formerly taken to be facts, it has come to look upon with suspicion. The hypothesis is an idea which is supposed to be fact, or at least, to be nearer fact than previous ideas. But, till it can be verified, it is held only tentatively, and this holding may be of all degrees of comparative assurance, from a mere suggestion or question to a well-defined theory. The process of transforming the hypothesis, or idea entertained tentatively, into a fact, or idea held definitely, is verification. We saw at the outset the difficulties which beset the ordinary crude notion of verification, that which considers it as a process of comparing ready-made ideas with ready-made facts; let us see how our present notion meets these difficulties.

In the first place, what are the facts in contrast with which the hypothesis is regarded as merely an idea? They are not a *fixed* something; fixed either in amount, or in quality. If the idea, the hypothesis needs extension, transformation and verification, the 'facts' in their turn, are in need of enlargement, alteration and significance. Take, for example, the hypothesis of evolution. The facts by which this

theory is to be verified or disproved are not a fixed, unchangeable body; if the theory gets its verification through the facts, the facts get a transformed and enlarged meaning through the theory. I do not mean simply that the theory leads to the discovery of new facts, though this is noteworthy, and, I think, inexplicable on the dualistic assumption. But suppose there is some animal of which absolutely no new observation has been made since the formation of the theory of evolution; our knowledge of that animal, the *facts* of the animal have been, none the less, transformed, even revolutionized. Let this instance illustrate the relation of the facts to the idea; if the idea, the theory, is tentative, if it is pliable and must be bent to fit the facts, it should not be forgotten that the 'facts' are not rigid, but are elastic to the touch of the theory.

In other words, the distinction between the idea and the facts is not between a mere mental state, on one side, and a hard and rigid body on the other. Both idea and 'facts' are flexible, and verification is the process of mutual adjustment, of organic interaction. It is just because the 'facts' are not final, settled facts that the mind frames its hypothesis or idea; the idea is the tentative transformation of these seeming facts into more real facts.

More in detail, we may consider the process as follows: The mind attacks the mass of facts which it suspects not to be facts piece-meal. It picks out some one aspect or relation of these 'facts,' isolates it, (technically the process of abstraction) and of this isolated relation it forms a hypothesis, which it then sets over against the facts from which this relation has been isolated. The isolated relation constitutes, technically, the universal; the background of mass of facts is the particular. The verification is the bringing together of this universal and particular: if the universal confronted with the particulars succeeds in filling out its own abstract or empty character by absorbing the particulars into itself as its own details, it is verified. And there is no other test of a theory than this, its ability to *work*, to organize 'facts' into itself as specifications of its own nature. But on the other side, the particulars attacked by the universal do not remain indifferent; through it they are placed in a new light, and as facts gain a new quality. Organized into the theory, they become more significant; what had previously been oppositions and even contradictions among them is removed, and we get a harmonious system. The important point then is to see that verification is a two-edged sword. It does not test and transform the 'idea,' the theory, any more than it tries and moulds the 'facts.' In other words, if the idea is tentative, needing to be brought before the court of the facts, so also the 'facts' are inadequate and more or

less contradictory—that is, they are only apparently facts. They need therefore to be harmonized and rendered significant through the idea, the hypothesis. We may indifferently describe the process as a movement of the theory upon the facts whereby the latter are rendered more rational, i. e., more significant and harmonious, or as a confronting of the theory by the facts, whereby it is verified. The actual result is the same in either case: we simply describe it from two points of view.

To recapitulate the whole matter: the distinction between idea and fact is a relative one, not an absolute separation; it is made for the sake of what we may term either a more real and more complete fact, or a more adequate and certain idea. There is a period, not only in childhood, but in every science, and as to every subject-matter in every science, when idea and fact are at one. But contradictions arise; the mind therefore holds idea and fact apart, regarding the idea as tentative and the fact as apparent. To this stage, there supervenes a period in which the mind attempts to get a definitive idea—or, from the other side, a real fact. It therefore by observation, experiment, and all other means at its disposal, makes its idea as definite and coherent as possible, and thus frames a hypothesis or theory. This theory it brings to the apparent facts, in order to organize them, to give them new and additional significance. So far as this is accomplished, idea and fact again become one, to remain one until further contradictions are discovered when the process must again be gone through with. And this is the description of the actual process of knowledge, of science. We have first an unconscious identification of idea and fact, and on this basis the universe, the realm of experience, is built up. But this universe lays itself open somewhere to suspicion; this suspected aspect is held apart from the rest, as an idea, the remainder being left undisturbed as 'fact.' The idea is wrought over as an idea into a scientific hypothesis, and is then projected again into the facts. As verified it becomes an essential part of the facts, changing to some degree or other the character of these facts. But this new universe again behaves suspiciously: the suspicious 'fact' is again arrested and condemned as a mere idea, but passing through the reformatory of thought issues as an hypothesis, and is turned out again into the free world of fact.

This continued process of breaking up and recombination by which knowledge detects, condemns, and transforms itself is verification. Thus the analysis of this process confirms the former contention that the logical sphere is integral and unitary.

ANN ARBOR.

THE NERVOUS SYSTEM OF THE VERTEBRATES.

PROFESSOR ERNST HÄCKEL* in explaining the evolution of Vertebrates calls our attention to the importance of *Amphioxus lanceolatus*, a little fish about two inches long, shaped like a lancet, and living, mostly hidden in the sand, in shallow places of the Mediterranean, the Baltic, and the North Sea. It has no head, no cranium, no brain. The front part is distinguishable from the hind part almost solely by the presence of the mouth surrounded by a number of cilia; and yet the Lanceolate belongs to the aristocratic class of Vertebrates: it possesses a spinal cord. The Lanceolate, accordingly, is the last surviving representative of the lowliest family among the Vertebrates.



AMPHIOXUS LANCEOLATUS.

Pallas, the first discoverer of the Lanceolate, did not at once recognize the importance of his find. He considered it as a kind of imperfect snail. Yet the presence of a *chorda dorsalis*, i. e. of a cartilaginous string forming the axis of the skeleton, and the *medulla spinalis* (spinal cord), fix the relation of this little fish beyond all doubt. Kowalewsky and Kupffer, moreover, have proved, that to a certain degree the ontogeny of the Lanceolate corresponds in all particulars on the one hand with that of the lower Vertebrates and on the other with that of the Ascidians. Thus we can consider it as an established truth that the Lanceolate is the connecting link between the Invertebrates and the Vertebrates.

Leuckart and Pagenstecher discovered in the front part of the spinal cord of the *Amphioxus* (see Müller's Archiv, 1858, p. 561) a small vesicle, which represents a primitive brain—if brain it can be called. However, whether this vesicle represents the initial state of all three bulbs that appear in a higher development (as W. Müller says), or whether it represents the third bulb only (as Mihalkovics says), or whether it corresponds (as Huxley says) to the thalamencephalon, i. e., the second bulb, is still an unsettled question. It is not improbable that the *Amphioxus* which we are acquainted with, is a degenerated form of that creature from which the higher vertebrates have descended.

In the plates published in the last number (No. 138, page 2215) of *The Open Court* Professor Häckel compares the development of a mollusk, like the Ascidian (A), with *Amphioxus lanceolatus* (B). How small are the differences in the beginning! And yet they were destined to keep the one creature in its humble condition of a mere vegetative existence, while the other in the course

* *Natürliche Schöpfungsgeschichte*, Chap. 21.

of further evolution was enabled to gain dominion over the whole creation of earth.

There are several differences of radical importance between *Amphioxus lanceolatus* and the higher Vertebrates; yet besides that of the absence of brain and cranium in the former, there is no greater disparity than in the arterial system of blood-circulation. The *Acrania* (the Vertebrates without cranium, represented by the Lanceolate) have no proper hearts; their hearts are mere arterial tubes, while the *Crania* (the Vertebrates with a cranium) are throughout endowed with a regular heart, which, engine-like, drives the arterial blood through the whole system.

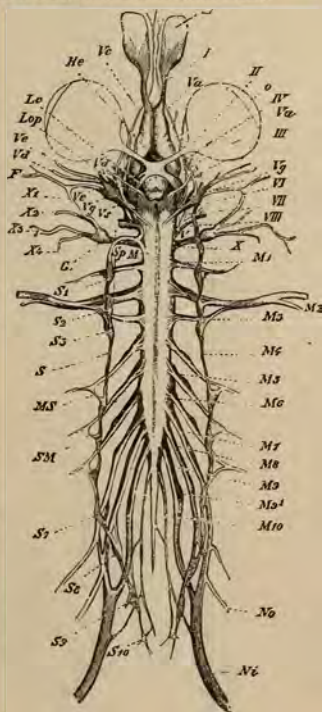
The nervous systems of all the Vertebrates are greatly different from those of the Invertebrates. There is no œsophagean ring encircling the gullet; and instead of isolated ganglia, we have one continuous column which is no longer below but far above the intestinal canal. This column is protected by bony covers (the vertebrae) which constitute a flexible yet strong backbone. The foremost ganglia together with their vertebral cases are transformed into brain and cranium; but the hemispheres and their bony cover,

the top of the head, are an additional growth, which has developed out of the first vertebra.*

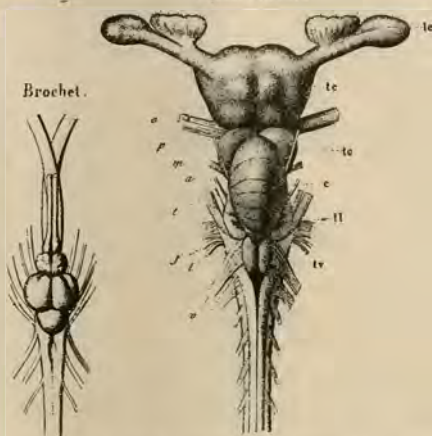
As the most representative examples of the various Vertebrates we select a number of diagrams of the brains of fishes, amphibians, birds, and mammals.

NERVOUS SYSTEM OF FROG, VENTRAL SIDE. (After Ecker.)

- H. Hemispheres.
 Lo, Optic Lobes.
 M. Medulla.
 M1-M10. Spinal nerves.
 S. Sympathetic nerve.
 St-Sto. Ganglia of the Sympathetic.
 MS. Branches connecting spinal cord and sympathetic.
 No. Femoral nerve.
 Ni. Sciatic nerve.
 I-X. Cranial nerves.
 I. Olfactory.
 II. Optic nerve with (o) eye.
 III. Oculo-motor.
 IV. Trochlear.
 V. Trigeminal.
 VI. Abducent.
 VII. and F. Facial.
 VIII. Auditory.
 IX. Glossopharyngeal.
 X. Vagus.
 Vg. Gasserian Ganglion (of fifth nerve).
 V5. Connection of Gasserian ganglion with the Sympathetic.
 F. Facial nerve.
 G. Ganglion of the Vagus.
 X1-X4. Branches of the Vagus.



Squale - Renard



BRAIN OF A PIKE AND OF A SHARK. (After Leuret and Gratiolet.)

- tc. Cerebral tubercles (lobes).
 to. Optic tubercles (lobes).
 te. Ethmoid or olfactory tubercle.
 tv. Vagus tubercle. The ganglion of the vagus nerve.
 c. Cerebellum.
 o. Olfactory nerves.
 p. Optic nerves.
 f. Trifacial nerve.
 m. Oculo-motor nerve.
 a. Abducent nerve.
 i. Trifacial nerve.
 f. Facial nerve.
 l. Labyrinthine nerve.
 v. Vagus or branchial nerve.

The most prominent divisions of the nervous system in the Vertebrates, i. e., in Fishes, Reptiles, Birds, and Mammals, are:

1. The Spinal Cord;
2. The Bulb (*Medulla Oblongata*);
3. The Small Brain (*Cerebellum*);
4. The Bridge (*pons Varolii*);
5. The Optic Lobes; and
6. The Thalami Optici.

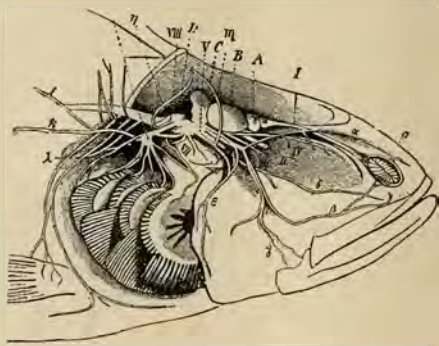
(The Optic Lobes are of greater importance in the lower Vertebrates; they are called in the physiology of man the Four Hills (*corpora quadrigemina*). The Thalamus remains entirely undeveloped in the lower vertebrates.)

7. The Striped Body (*Corpus Striatum*).
8. The Hemispheres, or brain proper (*Cerebrum*).

*Gegenbauer, *Untersuchungen zur Vergleichenden Anatomie der Wirbelthiere*. Part. III, das Knochengebiet der Schädler als Grundlage zur Beurtheilung der Genese des Knochengebietes der Wirbelthiere. Leipzig: 1872.

BRAIN OF THE BOA CONSTRICTOR. (After Swan, reproduced from Bastian.)

- a. Cerebral lobes.
- b. Optic lobes.
- c. Cerebellum.
- d. Membrane of the nose.
1. Olfactory nerve.
2. Optic nerve.
3. Third nerve, i. e. main oculo-motor.
4. Fourth nerve or trochlear to the superior oblique muscle of the eye.
5. Fifth nerve.
6. Sixth nerve.
7. Seventh nerve.
8. Eighth nerve.
9. Auditory nerve.
10. Glosso-pharyngeal nerve.
11. Trunk of vagus nerve.
12. Twelfth nerve.
13. A sympathetic ganglion.



BRAIN OF A PERCH. (Gegenbauer, after Cuvier.)

- A. Cranial lobe with olfactory ganglion (1).
- B. Optic lobe.
- C. Cerebellum.
- D. Medulla oblongata.
- I. Olfactory nerve.
 - a. Nasal sac.
- II. Optic nerve, severed.
- III. Oculo-motor nerve.
- IV. Trochlear nerve.
- V. Trigeminal.
- VI. Auditory.
- VIII. Vagus with its ganglion g.
 - kl. Branches of vagus.
 - m. Dorsal branch of trigeminus in connection with n.
 - n. Dorsal branch of vagus.
- αβγ. The three branches of the trigeminus V.
- δe. Facial nerve.
- λ. Branches of the vagus.

Perroquet.



Corbeau.



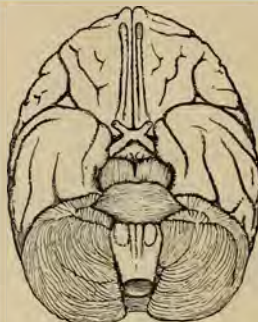
Chouette.



Cuckoo.



BRAINS OF PARROT, RAVEN, OWL, AND CUCKOO. (After Leuret and Gratiolet.)



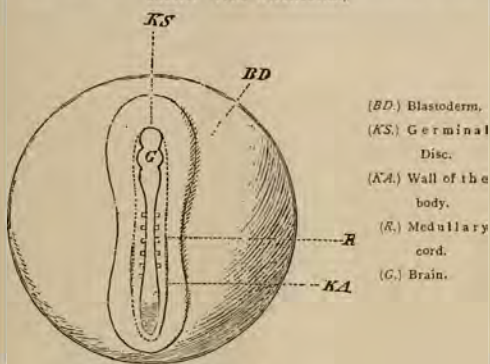
BRAIN OF A GORILLA.



BRAIN OF A BEAR.

The nervous system originates as a hollow tube formed by a very thin film. At an early stage of its development, the upper end (as seen in the adjoined figure) bulges out into three continuous bulbs. The first is to be the fore brain, the second the mid brain, and the third the hind brain.

EARLY STAGE OF THE NERVOUS SYSTEM IN THE DIFFERENTIATION OF THE EMBRYO. (From Wiedersheim.)



(BD.) Blastoderm,
(KS.) Germinal
Disc.
(KA.) Wall of the
body.
(R.) Medullary
cord.
(G.) Brain.

In the further evolution of the embryo we observe excrescences on each side of the fore brain. The passage to the mid brain is elongated and we call it the intermediate brain. The hind brain shows a new division which makes it slope by degrees into the spinal cord. This part is called the after brain.

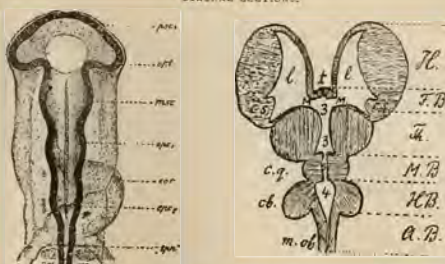
The excrescences of the fore brain are to become the hemispheres; they constitute the cerebral region of the brain. The fore brain will shrink so as to disappear almost entirely. The intermediate brain will develop the *Thalami*. The mid brain the *Four Hills*. The hind brain the *Cerebellum* and pons, while the after brain will change into the *Medulla Oblongata*.

The cavities of the tube will remain also, although much modified. The cavities in the hemispheres are called the lateral ventricles. Through the growth of the walls they become straightened into three narrow caves called the anterior, posterior, and lateral horns. The cavity of the original fore brain fuses with the cavity of the intermediate brain into the so-called "third ventricle." The passage from the two lateral ventricles into the third ventricle is very much reduced; it has the shape of a Y, and is called *Foramen Monro*.

The adjoined figures and diagrams show the growth of the different parts of the brain from its simplest beginnings.

The similarity of arrangement and the difference of development in the various parts of the brain among fishes, birds, reptiles, and mammals may be studied in the diagrams on page 2232, reproduced from Edinger.

CORONAL SECTIONS.

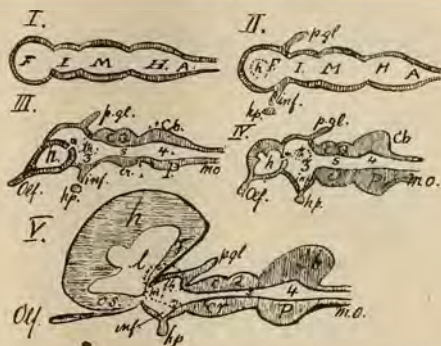


Early stage, representing the foetal brain of a chick. (After Mihalkovics.)

fact. Primitive fore brain.
opt. Primitive eye.
mid. Mid brain.
hind. Hind brain.
after. After brain.
sp. Spinal cord.
cor. Heart.

Later stage, representing in a diagram the foetal brain of a mammal. (McAlister.)

H. Hemispheres (secondary forebrain), representing the excrescences of the primitive fore brain.
F.B. Primitive fore brain.
Th. Thalamic region or intermediate brain.
M.B. = c.g. Mid brain = Corpora quadrigemina.
H.B. = cb. Hind brain = Cerebellum.
A.B. After brain = Medulla oblongata.
cs. Corpus striatum.
lv. Lateral ventricles.
mm. Foramen Monro.
3. Third ventricle.
4. Aqueductus Silvii.
4. Fourth Ventricle.



SAGITTAL SECTIONS REPRESENTING FIVE STAGES OF CEREBRAL DEVELOPMENT.

F. Fore brain.
I. Intermediate brain.
M. Mid brain.
H. Hind brain.
A. After brain.
h. Hemispheres.
hp. Hypophysis.
p.gl. Pineal gland or epiphysis.
inf. Infundibulum.
th. Thalamus (represented by a dotted line, because growing out from the side walls it does not appear in a sagittal section).
mo. Medulla oblongata.
cb. Cerebellum.
P. Pons.
CQ. Corpora Quadrigemina.
Cr. Crus Cerebri.
F. (in No. V) Fornix (the hind part of the hemispheric excrescence).
cs. Corpus striatum.
mm. Foramen Monro.
3. Third ventricle.
4. Fourth ventricle.
4. Lateral ventricle.
4. Aqueductus Silvii.

In a further development *m* sinks down to *m2*, as indicated by the dotted line *m*, *m2*. Thus the corpus striatum is placed alongside the thalamus and the latter (*th*) is overarched by the Fornix (*F*).

SAGITTAL MEDIAN SECTIONS (After Edinger).



GENERAL PLAN OF VERTEBRATE BRAINS.



GYNOTE.



TELEOST (OSSEOUS FISH).



AMPHIBIA.



REPTILE.



BIRD.



MAMMAL.

SCIENCE AND PHILOSOPHY.

BY CONSTANCE C. W. NADEN

We went a-begging for a nobler creed,
We craved the living bread and wine of thought,
That Eucharist which is not sold or bought
But freely given; yet, did any heed
'Twas but to offer pence, or bid us feed
From empty sacramental vessels, wrought
Of gold or brass; we spent our prayers for nought,
Faint and athirst with spiritual need.

Then some brought grapes, and some brought corn and yeast
Plenteous and good; yet still we murmured "Give!
This is scant fare when thirst and hunger cry;
Teach us to change our garner for a feast,
Preparing food by which the mind may live,
Perennial loaves and flagons never dry."

CORRESPONDENCE.

THE BASIS OF DR. LEWINS'S PHILOSOPHY.

"Omnia mea, mecum porto."—BIAS.

To the Editor of *The Open Court* :—

I SHOULD be glad, with your permission, to make a very brief minute on the fair and enlightened criticism of Hylo-idealism, at page 2163 of *The Open Court*, March 20. Surely, to begin with, the terms Ego and Self, or I, are identical, and not as stated by my critic, only similar. The term Soul is etymologically one with Life (Leib), and can only be a function of the vital organism, not a separate substance or entity. In fact, if we define Life, as we must do now-a-days, and for ninety years past, on the principle of general or structural anatomy (Somatology), as the sum of the organic (corporeal) functions, and Death as their extinction, the whole question drops by elimination of the whole imposing (in all senses of the ambiguous term) "spiritual imposture"—using the latter word in no invidious sense, but only as synonym for pre- and anti-scientific illusion and delusion. And if God be a spirit—a word which only means breath—that immemorial spectre vanishes as only the Archimagus of provisional spiritualism (Animism). Materialism, or Somatism, upon which all true science rests, is clearly hylo-zoic, and therefore Atheos, as independent of any immaterial principles or Anima Mundi to perform offices Matter performs by its own *Vis Inerta*. Monism seems thus, on the first principles of logic, an Entelechy or assured demonstration, two efficient motives or *quasi*-causes being inadmissible, when one is sufficient. Miss Constance Naden's sentence, quoted in the critique, that Self, in hylo-ideal phraseology, is co-extensive with the Cosmos—seems a root-idea quite incontrovertible. Objection is also taken to my basal argument "that the human mind cannot transcend its own percepts and concepts (consciousness), which con-

stitute its entire universe." But surely my position here is quite self-evident. *Quod supra, vel extra nos, nihil ad nos*, i. e., non-existent for us, is, if ever there was one, a simple and indisputable axiom. It seems entirely to traverse my candid and able critic's assertion "that in our own self we find conceptions [or ideals] which constantly compel man to think higher than himself. For, how can that be, if these conceptions and ideals are his very own? As my critic himself allows in the three words I have italicized in the preceding sentence. Surely out of Self-consciousness all is blank nihilism. Indeed, there is an ambiguity in my critic's own expression of belief in the correctness of Dr. Lewins's meaning, while insisting, at the same time, on its being "misleading." My reviewer quotes, with approval, a passage from the pamphlet, "Hylo-Idealism, or Autocriticism," by H. L. C., to the effect "that neither Matter nor Idea has the slightest preference over the other." But that is a metaphysical compromise which I disclaim, and which I may mention, was ultimately disclaimed by H. L. C. himself, prior to his lamentable premature death by suicide, as the consequence of over-strained brain and nerves while pursuing his undergraduate studies at Cambridge. My position is that Matter or Body is all in all, and that mind, idea, soul or spirit—i. e. Animism in every form—is only material or bodily effect, project, or exhibit. "In the beginning" was not exactly *Die That*, as Goethe makes Faust propound when translating the Neo-Platonic Fourth Gospel, but *Das Ding*. And yet this "thing" only manifests itself to us as a "Think."

In conclusion, I may remark, as elsewhere I have done, that Professor Max Müller, even on philological, which are less conclusive than anatomical data, is compelled to bear witness, in his recent *Science of Thought*, that I have quite made out my contention that "thing" to us can be only "think." And on that contention hangs the whole gist of my syntax. On that postulate I base the whole truth or falsehood of Hylo-Idealism, which combines Neo-Protagorism, the Lutheran doctrine of Private [individual] Judgment, and the right of personal conscience, with the Kantian negation of "Thing in itself." Religion (Divine worship), thus expires, its substitute being Hygiene, defined not as mere sanitary science, but, as Dr. Parkes in his manual of that *ultimus partus temporis* has it, supreme culture of body, including brain—a substitution which at once transforms as by the Palingenesia fabled of the Christian pseudo-revelation, the thought, conduct and destiny of past and present derelict humanity. R. LEWINS, M. D.

London, April 1890.

BOOK REVIEWS.

THE WAY OUT OF AGNOSTICISM; OR, THE PHILOSOPHY OF FREE RELIGION. By Francis Ellingwood Abbot, Ph. D. Boston: Little, Brown, & Co.

This little volume of seventy-five pages contains Dr. Abbot's philosophy in a more popular form than his larger work, *Scientific Theism*. It is a collection of essays based on notes of forty-one lectures delivered in 1888 in the "Advanced Course, Philosophy 13," at Harvard University. Agnosticism is characterized in the preface as that philo-sophical opinion according to which "no theory of the universe is possible" and the most vital questions, such as "whether the phenomenal universe is the product of intelligence or unintelligence . . . whether conscious existence ceases at death or continues beyond the grave, are necessarily and absolutely unanswerable." Dr. Abbot fully recognizes the weakness of this position, which has become the philosophy of the age, and shows a way out of it by proposing a philosophy of free religion, such as he conceives to be the only possible one.

The basis on which Dr. Abbot takes his stand are the facts of experience, critically sifted by science. He says:

"The universal results of the special sciences, including the method

common to them all, are the only possible data of philosophy or universal science."

The result of his philosophy is summed up in these words:

"The universe is known as at once infinite *machines*, infinite *organism*, and infinite *person*—as mechanical in its apparent form and action, organic in its essential constitution, and personal in its innermost being; it is the eternally self-evolving and self-involving unity of the Absolute Real and the Absolute Ideal in God."

We must call the reader's attention to the fact that Dr. Abbot uses the words organic and personal not in their precise scientific meaning. The Universe is maintained to be personal, because it makes morality possible: it is the objective ground and foundation of moral action, or, as Dr. Abbot says, it is "moral." The Universe being moral, Dr. Abbot calls it an infinite person. We have in a former number* stated our dissent from this presentation, and can accordingly be brief here. We use the words "organism and person" in their usual and more limited sense, and must accordingly refrain from calling the Universe an organism or a person. But granting the use of the word person in the sense of affording an objective ground for our moral ideal, there would be no objection to Dr. Abbot's conclusion.

To present, with brevity, the evolution of thought in great outlines, Dr. Abbot characterizes the three great phases of philosophy, as (1) the Greek, (2) the German, and (3) the American. Generalizations of this kind are often useful, but easily lead the student astray who is not sufficiently familiar with the particulars. We believe that Dr. Abbot would better have characterized the different views by their respective representatives, viz., by Aristotle and by Kant. Kant being the leader of German philosophy, Kantian philosophy is a special phase of, but can by no means be considered as the German theory.

Dr. Abbot says:

"In this German theory of Universals lies the deep, secret, and generally unsuspected source of all modern Agnosticism, a result which was uncritically accepted, ready-made, by Spencer and Huxley from Hamilton and Mansel, borrowed by Hamilton and Mansel from Kant and the post-Kantian Idealists, and originally developed by Kant out of Hume and other adherents of Scholastic Nominalism."

Kant's agnosticism (viz., the idea that things in themselves are unknowable) was, after all, only a phase in his own development, the traces of which were left in his chief work, *The Critique of Pure Reason*. *The Critique of Pure Reason* stands as a landmark in the evolution of philosophic thought, and, like mountain-ranges, the great landmarks of nature, this book owes its existence to a revolution that threw up the different strata of a long course of development, and sometimes left the most recent thought, indicating a new era, standing beside the most reverent, yet antiquated ideas which Kant's genius had in vain endeavored to modernize. Kant's *Critique of Pure Reason* is by no means a work that is of one harmonious cast. It shows (as Windelband explained in an article on the subject*) at least four phases in his conception of noumena, some of which are radically contradictory to one another. It is fortunate that the old and agnostic Kant did not wipe out of later editions those passages which let us recognize the younger and positive Kant.

However different Dr. Abbot's method and the sphere of his activity are from ours, we recognize in his works the same goal and the same ideal. We cannot agree with his terminology, nor can we always consider his manner of systematizing thought a success. The repetition of his three stages, the machine, the organism, the person, appears to our conception artificial. Nevertheless we read the book with pleasure and satisfaction, and believe that it will fulfil its mission. The spirit of Dr. Abbot's philosophy is characterized in the concluding sentence:

* Page 2030-31.

† *Philosophische Monatshefte*.

"Said Ralph Waldo Emerson, America's greatest prophet: 'There is a statement of religion possible which makes all scepticism absurd.' Is there not such a statement lying latent and implicit in the *PHILOSOPHY OF FREE RELIGION*?"

P. C.

An Open Letter to the Hon. Edward M. Paxson, the Chief Justice of Pennsylvania, is the title of a little pamphlet by Mr. Richard B. Westbrook, of the Philadelphia bar, wherein two assertions of the Chief Justice before the Law School of the University of Pennsylvania in October last—namely, (1) that the law of Sinai was "the first of which we have knowledge," and (2) that Moses was the greatest statesman and lawgiver the world has ever produced"—are severely animadverted upon. Dr. Westbrook has written a learned letter, and presented the facts of his argument in a formidable shape.

We have received the second number of the new Russian philosophical quarterly *Voprosy filosofii i psichologii* (Questions of Philosophy and Psychology), published by the Psychological Society of Moscow, and edited by the well-known Moscow savant, Prof. Dr. N. Grote. In the prefatory remarks to the first volume of this periodical, Professor Grote declared that it was the intention of the new quarterly to respond to an actual social need in Russian life, and not merely to the cultured wants of a few philosophically-inclined individuals. Russian philosophy, and consequently the Russian conception of life and ethics, has been until very recently the ideal embodiment of confusion and inconsistency, never with an object of its own in view, but constantly and servilely taking to itself the newest tendencies of occidental thought. But within the last ten years there has been a notable resuscitation of Russian original research, which has taken a distinctly national turn; new life has appeared in the universities; authors like Solovieff, Tchitcherine, Strahoff, and Kozlof have arisen; a psychological society was founded in 1885, by Professor Troitsky, in Moscow; and finally the movement has exhibited an ethico-social aspect in the renowned works of Count Leo Tolstoi. To make the new review the exponent of this new tendency, is the intention of its founders. It will eschew the preponderantly special character that so many magazines of its kind affect, and its pages will be open to the expression of every opinion. The contents of the present number are as follows: "The Relations of Voltaire to Rousseau," by I. L. Radlow; "The Relations of Philosophy to Science," by H. A. Ivanow; "Ethical Problems in Contemporaneous Philosophy," by L. M. Lopatine; "Concerning the Question of Free-Will," by H. A. Zverev; "What is Metaphysics," by Prof. Grote; "Psychophysical and Mechanical Theories," by H. I. Tchitcherine; "Historical," by H. H. Ovcianiko-Kulikowsky; Reports, Reviews, Notes, etc.

The following are the chief contents of No. 2, of Vol. III, of the *American Journal of Psychology* (January Quarter): "The Insanity of Doubt," by Philip Coombs Knapp; "The Effect of Fatigue on Voluntary Muscular Contractions," by Warren P. Lombard; "Studies from the Laboratory of Experimental Psychology of the University of Wisconsin," by Joseph Jastrow; "Children's Lies"; "A Sketch of the History of Reflex Action." The first results of the experimental work of the psychological laboratory of the University of Wisconsin, under the direction of Prof. J. Jastrow, are here published; they bear principally upon the establishment and verification of the psycho-physic law. Dr. Lombard's researches on Voluntary Muscular Contractions are suggestive, and Mr. Knapp's article on the Insanity of Doubt is a fair résumé of his subject. The department of "psychological literature" is especially rich and well worth the subscription to this quarterly. (Editor, G. Stanley Hall, Clark University, Worcester, Mass.)

Dr. George M. Gould has sent us copies of two pamphlets: "Clinical Illustrations of Reflex Ocular Neuroses"; and "Reflex

Neuroses Due to Eye-Strain." Dr. Gould's practical conclusions are: (1) In headache *always* suspect eye-strain, and especially in women in the years between puberty and middle age (2) In functional gastric derangements, not quickly to be explained otherwise, suspect eye-strain, and especially if headache coexist (3) In other functional derangements such as chorea, nervous heart, extreme irritability of temper, hysteria, etc., that do not yield to treatment, or that are not idiopathically or otherwise explainable, exhaust the possibility of a reflex neurosis from eye-strain or other peripheral irritation. (4) Have the refraction estimated, under a mydriatic, and the coordination of the external ocular muscles proved, by a scientific authority, in the case of every child, before or by the age of puberty.

THE EIGHT-HOUR MOVEMENT.

The eight-hour movement has in view the procuring of greater leisure to workingmen, so that they can devote more time to intellectual culture and self-education. We are in full sympathy with this endeavor and we recognize the right of laborers to do all they can to improve their condition and to fight for their ends by the help of all the legal means that our constitution and laws afford. It is to be hoped that the scheme will, at least to some extent, prove successful, and we should count it a great step forward if the employees of the government were to be engaged throughout the United States on the eight-hour plan.

The eight-hour movement involves, however, many problems concerning which it is almost impossible to foretell how they will or can be solved. Will our capital be able to bear the loss of a reduction in work without a reduction of wages? Moreover, there are workingmen who do not work by time, but by the piece. Further, there are farmers, teachers, clergymen, editors, agents, cabmen, railway-men, servants, and the like: how will they be benefitted by the movement unless their salaries rise in the same proportion? And if thus a general increase of wages in all professions be effected, would not necessarily everything become more expensive in the same ratio? Our gain, in that case, would be in statistical figures only, but not in reality; on the contrary we would lose in an inverse ratio, since we would become that much weaker in competing in the world-market with foreign nations.

Without considering all these difficulties we see a great danger to the independent man of little means, the small employer, and to him who is about to start a business of his own. Is not the preservation of this middle class universally considered as of great concern in republican states? and will not the consequences of the eight-hour movement fall most heavily upon them? It is scarcely to be doubted that to many of them it will be fatal. Let us hope, however, the best for the future. We trust that the leaders of the movement will consider the problem from all sides. P. C.

NOTES.

In a pleasant article "A Help to Moral Life" in the last *Ethical Record* Mr. W. M. Salter, the leader of the Ethical Culture Society of Chicago, proposes that a collection be made of the ethically inspired passages of the literature of the world, which shall "serve in the midst of our busy lives to remind us of higher things, to freshen our aspirations and nerve our will." Such an ethical anthology should be drawn from all the sacred and profane writers. M. Aurelius, Plato, the Bible, Emerson, Newman, and many others are suggested. But this work is to be the outcome of the reading and experiences of many individuals, and all accordingly are requested to send such appropriate passages and selections as they come across, to Mr. W. M. Salter, of No. 516 North Avenue, Chicago, who probably may undertake their publication.

The Open Court.

A WEEKLY JOURNAL

Devoted to the Work of Conciliating Religion with Science.

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TO FULFIL, NOT TO DESTROY.

THE greatest religious revolution which the world has ever seen was that of Christianity. From the standpoint of an impartial umpire, it must be confessed that the triumph of the Christian Faith has been the grandest in history. The founder of Christianity, who died on the cross as an outlawed criminal, led the van of a new civilization. In his name kings and emperors reverently bowed and yielded to the demands of humaner ideals; while the greatest philosophers, the princes of thought, brooded over his ethical doctrines.

How can we explain the unparalleled success of Christianity? It is due, undoubtedly, to the sublimity of Christ's ethics, to the gentleness and nobility of his person, to the kindness of his heart, to the wealth of his spiritual treasures, and to the poverty of his appearance. But that is not all. Every business man knows that for success, not only ability is required, not only the solidity of one's goods, but the merchandise offered must also be in demand.

No movement in history can be successful unless it is based upon a solid ethical basis, having in view the elevation and amelioration, not of a single class or nation, but of the human kind. Yet this is not all. A revolution must be needed; it must stand in demand. No revolution will endure unless the ethical idea by which it is animated lies deeply rooted in the past.

A successful *revolution* must be the result of *evolution*; and a successful revolutionist must combine two rare qualities, an unflinching radicalism and a strong conservatism. The ideal of a successful movement must open new and grand vistas for progress, but at the same time it must be the fulfillment of a hope, the realization of a prophecy. Thus it will shed its light on the ages past, which will now be understood as preliminary and preparatory endeavors to effect and to realize this ideal.

We stand on the eve of another great religious revolution. Humanity has outgrown the old dogmatism of the churches, and a new faith is bursting forth in the hearts of men, which promises to be broader and humaner than the narrow bigotry of old creeds. It promises to accord with science, for it is the very outcome of science! It will teach men a new ethics

—an ethics not founded on the authority of a power foreign to humanity, but upon nature, upon the basis from which humanity grew; it will rest upon a more correct understanding of man and man's natural tendency to progress and to raise himself to a higher plane of work, and to a nobler activity.

Science has undermined our religious belief, and beneath its critical investigations dogmas crumble away. But whatever science may undermine of ecclesiastical creeds, it does not, and will not, prove subversive of the moral commandments of religion. Science will, after all, only purify the religious ideals of mankind, and will show them in their moral importance. The most radical criticism of science will always remain in concord with the reverent regard for the moral ideal.

We believe in progress, and trust that man lives not in vain, that man's labor, if rightly done, will further the cause of humanity and make the world better—be it ever so little better—than it was. We aspire to a nobler future—and let me point out one important subject which is too often overlooked, and which is indispensable to success. The success of ideals is impossible without a due respect for the ideas which are to be displaced. The triumph of a better future depends upon a due reverence for the merits of the past, or, in other words, we must know that the new view is the outcome of the old view. The ethical religion of the future springs from the seed of past ecclesiastical religions. And if the latter appear to us as superstitious notions of a crude and strangely materialistic imagination, they nevertheless contain the germs of purer and more spiritual conceptions. And there is no doubt that the founder of Christianity is more in accord with the new rising movement than with the doctrines of his followers, who worship his name, but neglect the truth and spirit of his teachings.

When Christ preached the sermon on the mount, which contains, so to say, the programme of his doctrines, he expressly stated: "Think not that I am come to destroy the law or the prophets; I am not come to destroy, but to fulfil." This sentence contains the clue to his grand success. Christ was a conservative revolutionist. The new movement which he introduced in the history of mankind, was the result of the past; the New Testament was the fulfillment

of the Old. And so every successful movement has been, not a mere destruction of old errors, not the introduction of some absolutely new idea, but the fulfillment of the past, and the realization of long cherished aspirations and hopes.

Let us learn a lesson from Christ, and like him, let us "not come to destroy, but to fulfil."

FROM MY ROMAN JOURNAL.

BAMBINO-WORSHIP AT ROME.

BY MONCURE D. CONWAY.

II.

ON the 15th of October, 1754, the historian Gibbon sat musing in the Ara Coeli Church at Rome. This ancient church—thirteen centuries old—occupies the site of the Temple of Jupiter Capitolinus; one of its columns came from the palace of the Cæsars; the one hundred and twenty-four marble steps in front are from the ruins of the Temple of Quirinus. Here, then, amid these relics of imperial Rome, sat Gibbon, "while the barefooted friars were singing vespers"; and in his mind arose "the idea of writing the Decline and Fall of the City." Probably one chapter in that book did more to awaken the spirit of historical scepticism than any that had appeared.

To-day—Twelfth Day—I sat musing where Gibbon sat, and a strange masquerade of antiquity passed before me. For it was the high festival of the Bambino—an image of the infant Jesus said to have been carved by a pilgrim from a tree on the Mount of Olives, and painted by St. Luke while the pilgrim was sleeping. Years ago I saw this doll at a private 'interview' given to Gen. Sherman. We were then told that this image was carried about in its coach to houses of the sick, to work 'faith-cures,' and that its fees were larger than those of all the physicians in Rome combined. Some one suggested that it would be a capital practitioner to follow an army with the ambulances. To-day I had a strong impression that the Bambino had been repainted since I saw it before, but must be mistaken, for of course pigments of St. Luke would not rust. On Christmas day the Bambino was taken from his closet and borne in procession to a large illuminated grotto, where he has received the adoration of thousands until to-day, when, after culminant ceremonies, he was borne again to his cloister. In the grotto were figures, life-size, of Mary on her knees, holding the Bambino, Joseph near by, and the adoring shepherd-kings. The ceiling was radiant with cherubs and large angels. Mary is youthful, Joseph venerable,—to heighten the improbability of his being the infant's father. The substitution of a cave for the scriptural stable, as the holy babe's birth-place, associates him with Dionysos and Hermes and other cave-born deities,

but all the circumstances of this Babe-worship carry me back to the banks of the Jumna, and the infant Krishna. There the Hindus pressed on me little pictures of Krishna,—the word means 'tinged,'—as here they sell me penny pictures of the 'tinged' Bambino. But I must not go into comparative mythology. Across the church, in front of the grotto, a little stage is erected. Here, not so many years ago, children were wont to perform little dramas, showing forth the miraculous works of the Bambino; now they only make little speeches, the most dramatic exercise being an occasional dialogue between two. The children's ages range from five to twelve. They are children of the poor, and repeat speeches put into them like phonographs. One describes the splendid jewels with which the Bambino is decorated from head to foot; there is no intimation that these jewels—presented by the wealthy in more credulous times—might save his pauper-worshippers from more suffering than his medical potency can heal. A little boy threw kisses at the Bambino; a little girl told how happy his mother must be. Now and then when the small speakers lost the thread of their discourse, or spoke the wrong word, there were bursts of merriment in the crowd, making a strange antiphone for the Franciscans singing at the altar. However, merriment was the order of the day, and tin-trumpets were sounding on the great stairway outside.

Around the arch of the grotto are many small pictures—daubs rather—put there by worshippers who believed themselves healed by the Bambino. These represent varieties of accidents from which they were saved,—men under cart-wheels, women falling down stairs, children pitching out of windows. In the corner of each picture is seen the Babe and his mother, suggesting to the incredulous that with such proximity they might as well have prevented the accident. But then how could the Bambino be supported and enriched? And, by the way, I found in an adjoining altar a curious suggestion of antiquity. This is an altar under the special patronage of St. Anthony. In front of it is written, *Si quaris miracula*—to which one naturally adds *circumspice*. Over the remains of Sir Christopher Wren in St. Paul's, London, is written *Si monumentum quaris, circumspice*—if you seek his monument, look around, that is, at the cathedral he built. This altar inscription invites us to find St. Anthony's miracles by looking at the votive pictures reporting them—pictures resembling those around the grotto, except that, instead of the Bambino, in the corner of each appears St. Anthony bearing a lily (symbol of his chastity.) Now, I could not help suspecting that in this most ancient and plebeian church, there was here a survival of the time when these altars were competitive. Here again my memory went back to India,

where, at religious festivals, I saw worshippers of different gods and goddesses clamorously soliciting patronage for their own shrine. I have been pulled one way towards Jaganath and another towards Krishna,—being expected to buy a token at the one I went to. Thirteen centuries ago these saints and images were not so harmonious as now. The festival day witnessed a grand bazaar, in which each priest vociferated the miraculous advantages of his own altar. Between the St. Anthony altar and the Bambino is set the throned marble figure of Pope Paul III, to remind us of the all-comprehending sway under which these competing stalls of the Holy Fair were made coöperative.

This old mitred Pope looked very grandfatherly with the children climbing all over him to get a better look at the grotto ceremonies. There was wild excitement when, at about a quarter past four, the long procession in blue gowns, bearing yard-long candles, moved slowly through the church, chanting. When the grotto was reached a priest in richly embroidered robes ascended and took the Bambino from Mary, whose upheld hand with stretched out fingers remained rigidly where the Babe's head had been supported. I noticed that the Bambino was preceded by a white-and-gold banner in the centre of which was a picture, apparently of St. Anthony—this precedence possibly the result of an ancient compromise between the rival altars. In the procession moved hundreds of priests, and it was wonderful to see these gray men, with spectacled eyes, some with scholarly faces, following this decorated half-yard of painted wood. The Bambino passed under my eyes. Its smooth painted face, staring eyes, golden crown; its white swathing clothing, enclosing the legs and feet in one mass—as is the custom among Italian peasants; impressed me as make-up in a solemn comedy. I could not help thinking of Tieck's tale of the leather effigy vitalized by a shooting star, and wondering what story this staring wood would have to tell should it suddenly be animated, and made more advanced in years. Now it appeared amused with what was going on. The procession marched with it out of doors, where the last splendors of the sun were shining on a thousand bowed heads, and marched round the church again. And now I noted something that may have been mere coincidence, though I suspect not. When they came in from the open air the last time,—by a door facing the west,—it was exactly as the sun was disappearing. I will not say the sun was setting—it might only have gone behind houses—but the Bambino was held up outside the door in its last apparent ray, and at that moment the long file of processionists in advance, knelt along the middle aisle, turned their faces toward the Bambino and the fading light, and crossed themselves. Here again I resist the temptation to enter on solar

mythology, and pass on to my story. Which indeed is nearly ended. The Bambino was borne from the fading sunlight at the west to the high altar at the east, and there, amid waltz-like music of the organ, and alternate singing of priests and people, shone for a moment, then disappeared in clouds of incense,—to be seen no more until next Christmas.

As the tall altar candles were extinguished, I turned to leave. It was slow work—so vast was the throng,—and I had opportunity to observe the crowd. The mass was of poor Italians, but a large majority of the well-dressed were English, Germans, and Americans. They bowed to no altar as they passed, nor crossed themselves, nor touched themselves with holy water. Is this old Bambino festival, like the Oberammergau Passion Play, kept up by and for protestant tourists? At our hotel there are a few wealthy Catholics, and I observe that they rarely go to these antiquated church-spectacles, and some even betray a certain irritation at our interest in them. Are they growing to be ashamed of them?

I found I had lost a little package of pictures,—of the Bambino, St. Michael with Satan underfoot, etc.,—and returned into Ara Coeli to find them. The grotto was dark, the altar candles extinguished, but by the light of one ever-burning lamp I distinguished a person leaning against the famous pillar from Cæsar's palace, marked *Ex cubiculo Augustorum*. He was a quaint figure, in knee-breeches and powdered wig, and seemed to have been making notes in a little book. He said to me in good English, 'Have you lost something?' 'Yes,' I replied, describing the little package. 'Ah, give me your address, and if I find your lost pictures you will receive them.' 'Thanks,' I said, giving my card, 'and will you give me yours?' I glanced at his card—could my eyes deceive me? 'What means this,' I cried, 'are you a descendant of the historian Gibbon?' 'I am the historian himself. You see when I got to the gate of heaven St. Peter said he didn't entirely like my views of Roman history, and directed that I should return to this church, where my work was begun, and spend a hundred years studying it over again.' 'But is it not a dreadful Wandering Jew kind of doom?' 'Why no, I rather like it; and in truth I find St. Peter wasn't far wrong in wishing me to revise my impressions.' 'If it isn't boring you,' I said, 'I would be glad to learn your later opinion.' 'Well, to give it briefly, I find that what I called a Decline and Fall was really a moral ascent. The Capitol had been superb, but founded in cruelty, the proud palace of the Cæsars in oppression, the Temple of Jupiter in the principle of arbitrary authority. Their crumbled walls—symbolizing the Fall of Rome—went to build this church, which was dedicated to *Santa Maria in Capitolio*. In other words a woman's heart was conse-

crated in the citadel of heartlessness. Then there was an ancient dream of the lowly that the lion would lie down with the lamb, and a little child should lead them. The Bambino is a rude memorial of that little child, who led captive the lion of Roman power which had fed on the lamb—on the weak and innocent. These things have petrified now—they are fossils—but a student must not despise fossils. That was my error. And these superstitions,—are they not better than the gladiatorial combats in yonder grim Coliseum, and the victims that once bled on altars where we stand?

At this moment the Sacristan, who did not appear to see my interlocutor, pointed me to the door, and my interview with the historian ended just as I was about to argue with him concerning the cruelties of the Holy Empire.

ROME, 1890.

THE PSYCHIC LIFE OF MICRO-ORGANISMS.

BY GEORGE J. ROMANES.

I WILL add a few words to this correspondence, because, from what M. Binet has now supplied, it appears to me that his "point of view" has been fully cleared up.

Briefly put, he expressly abolishes distinction between physiology and psychology. Therefore, as he tells us, while writing his book on the "*Psychic Life of Micro-Organisms*," he "set aside the question of consciousness"; and adds, "I do not know, and no one in my judgment, can know, whether the Micro-Organisms are conscious or not of their highly complex physiological acts." In other words, the Micro-Organisms do not fall within my "Criterion of Mind": they yield no objective evidence of consciousness, and hence M. Binet and I appear to be in full agreement on all points, save that of the appropriateness of using psychological terms while dealing with physiological facts. If he does not know, and does not believe he can ever know, whether his Micro-Organisms possess even the faintest rudiment of consciousness (and, *a fortiori*, of emotion or intelligence), it becomes but a meaningless—though a most misleading—performance to write a book which professes to show that the Micro-Organisms present "the majority" of the emotional and intellectual faculties which characterize the higher mammalia. No doubt it is most desirable ever to remember that psychological states are correlated with physiological, but hopeless confusion must result if we expressly confound the two things. If, for example, we say, as M. Binet now says, "Fear is an especial physiological state, which may or may not be accompanied with consciousness," we are merely discharging from the word "Fear" every vestige of its distinctive meaning. Fear is not a physiological state,

even though it be true that it is always *expressive* of a physiological state. We might as well say that a high sea is an especial aerial state, because it never occurs without an aerial tempest.

By thus intentionally confounding the subject-matter of one science with the subject-matter of another, we should merely be obstructing progress in both, and I cannot help thinking that if M. Binet had occupied himself more with purely physiological research, and less with his investigations into comparatively abnormal psychology, he would have seen this for himself.

For example, when, as now, he speaks of so-called "unconscious judgments" as if the term were not metaphorical, but really "scientific," see what it leads to. "Plainly, this is a psychological terminology applied to phenomena that are (perhaps) purely physiological. But what is the harm?" The "harm" is that the "terminology" involves a contradiction in terms. In as far as judgment is judgment it cannot be unconscious—any more than shadow can be sunshine, or a living body a dead one. We cannot indeed have shadow without light, or life without a body; but this does not prove that shadow *is* light, or that life *is* a corpse. And the contrast between consciousness and no-consciousness is even greater than that between light and shadow, or that between life and death. For it involves the difference between existence as extended and not extended, as physical and not physical, as material and not material. Therefore, I say, to confound the subject-matter of psychology with the subject-matter of physiology, is to invite "harm" even greater than could arise by similarly confounding the subject-matter of any other two sciences whatsoever. Therefore, also, the very difficulty which unfortunately arises in determining the boundaries between these two sciences,—or in assigning the place at which physics begin to become associated with psychics,—appears to me to constitute the best of reasons why we should clearly recognize the great distinction that there begins to emerge, since it is unquestionably the greatest distinction that falls within the range of human experience. And, in my opinion, no better illustration could be given of the "harm" which arises by refusing to entertain this great distinction, than is furnished by M. Binet's book. For this book really serves to emphasize the impossibility of studying the phenomena of mind on their physiological side. Take, for example, the following statement of his position. "I do not allow the contention of Mr. Romanes, that such an employment [i. e., transposition] of terms is not a scientific one; for everybody is competent to translate the words 'unconscious judgment' into their equivalent which is this: 'the material process that accompanies judgment when judgment is conscious.' This point

postulated and thoroughly grasped, it is conceivable how we may undertake the same task with regard to all psycho-physiological functions. This is the work I sought to accomplish in the case of the Micro-Organisms." Well, observe the result of this attempt. On account of their performing certain adjustive movements, M. Binet, as we have seen, ascribes to these creatures the majority of emotional and other psychical processes which occur in the higher animals. Yet these Micro-Organisms present no observable nervous system; and, in view of their methods of multiplication by fission etc., we must conclude that they cannot possess any such system. On the other hand, we know that the material processes which accompany judgment, or any of the other mental processes which M. Binet ascribes to the Micro-Organisms, are elsewhere material processes which take place in the nervous system. Therefore, even if we allow (for the sake of argument) that all these mental processes do occur in these organisms, it is perfectly certain that the material processes which accompany them cannot resemble those which accompany the same mental processes as these occur in the higher animals. So that here, at all events, *nobody* "is competent to translate the words 'unconscious judgment' into their equivalent": the equivalent (supposing that there be an equivalent) must be totally different in the two cases, even from the purely "objective point of view."

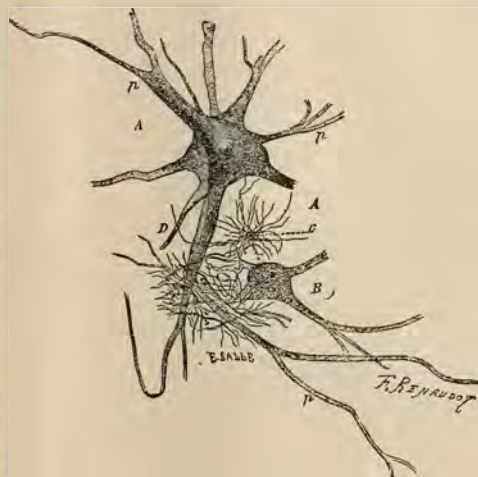
I cannot see that M. Binet's recapitulation of his objection to my definition of instinct invalidates the answer which I previously gave, if only the whole definition be quoted (he only quotes the half). Briefly stated, I regard instinct as reflex action *which is conscious of its own performance*. From this it follows, as previously stated, that in particular cases we are often unable to say whether a given action is reflex only, or likewise instinctive. But it does not follow, as M. Binet's objection asserts, that instinct, when it is present, "is incompatible with the idea of consciousness"; for the fact that in any particular case we have not the means of proving the presence of consciousness, is no proof that consciousness is not present.

LONDON, Feb. 16, 1890.

THE SPINAL CORD AND MEDULLA OBLONGATA.

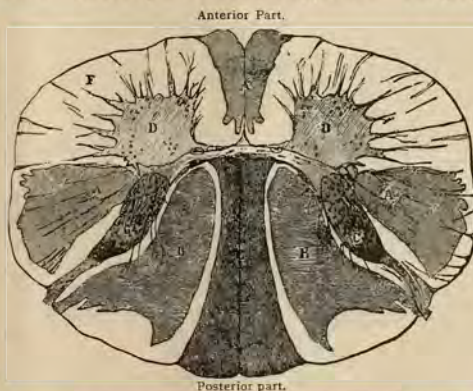
THE nervous system is built up of (1) nervous substance and (2) neuroglia. Nervous substance consists either of ganglionic cells or of nerve-fibres, the latter being processes rising out of ganglionic cells. Neuroglia, the nervous bindweb, is as it were the framework which supports the nervous substance. The membranes which envelop the ganglionic cells and the sheaths which encase the nerve-fibres and nerve-bundles are neuroglia; and besides these comparatively strong ligaments there are most delicate neuroglia-cells

which in outward appearance resemble heaps of burs thickly crowded about the ganglionic cells and nerves, and filling the spaces between them.



NERVE CELLS FROM SPINAL CORD. (After Ranvier.)
A. and B. Ganglionic cells.
C. Neuroglia cells.
D. Axis cylinder.
E. Protoplasmic process.

The spinal cord is a long tube of nervous substance supported by neuroglia, having comparatively thick walls. Its cavity has almost disappeared. The gray



TRANSVERSE SECTION OF SPINAL CORD. (Reproduced from Charcot.)
A. Columns of Tücker (direct pyramidal).
A. A. Crossed pyramidal tracts.
B. B. Posterior root zone (Burdach's column).
C. C. Posterior horns.
D. D. Anterior horns.
E. Column of Goll.
F. F. Anterior root zone.

matter of the spinal cord appears when viewed in a horizontal section to be arranged in the shape of cres-

called the anterior and posterior horns. These parts contain the ganglionic nerve-cells. The white matter consists of fibres which stand in connection with the gray matter of the horns. These fibres lead up to, and arrive from, the different parts of the brain. The nerve bundles coming out of the spinal cord are called *radices* or roots.



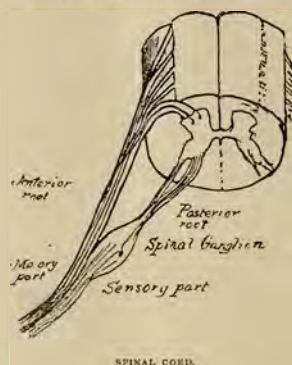
SPINAL CORD. (Cross-section after Deiters.)

Ra. Radix anterior.
Rp. Radix posterior.
Rip. Inner part of Radix posterior.
Cp. Commissura posterior (gray substance).
Caa. Commissura anterior.
Cc. Central canal.

The nutrition of nervous substance takes place in the direction of its functional activity. Accordingly, if we cut a nerve, it will degenerate, in case it be motory, below, in case it be sensory, above the cut. With the aid of this law, named after the English physiologist Waller, experiments have been made (especially on dogs) with a view to tracing the directions of the different nerves. The results of the experiments were then compared with and corroborated by pathological observations.

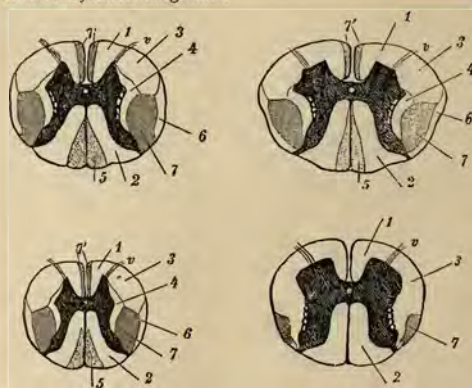
The posterior roots have by this method been proved to be sensory. Peripherally they originate in the Pacinian corpuscles which are embedded in the mucous membrane of the skin. Shortly before entering the spinal cord they pass through a ganglion which makes the sensory fibres easily distinguishable from the motor fibres of the anterior roots. The anterior roots, or motory fibres, terminate directly in their respective muscles. The most important sensory tracts in the

spinal cord to which the posterior roots lead, are Goll's bundles, situated between the posterior horns, and the cerebellar bundles situated on both sides. The most important motory centres lie (1) between the posterior horns: they are called Turk's bundles or the direct pyramidal bundles; and (2) on both sides underneath the cerebellar bundles. This motor tract is called the indirect pyramidal bundle.



With anterior and posterior roots. (After Edinger.)

All further details are best studied by an inspection of the adjoined diagrams.

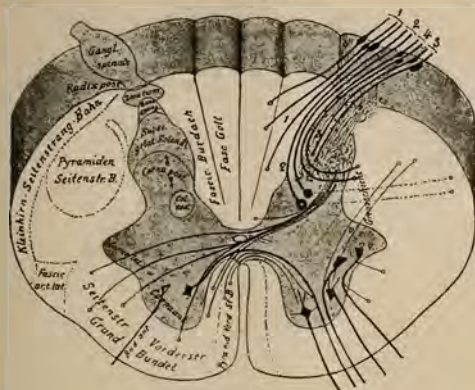


DIAGRAMS REPRESENTING FLECHSIG'S INVESTIGATIONS.

Showing the different bundles of nervous fibres in two cervical sections, a pectoral, and a lumbar section of the spinal cord.

1. Anterior bundle of mixed nerves, paths to and from reflex centres in the medulla oblongata.
2. Burdach's bundles receive fibres from the posterior horns and lead them through the corpus restiforme to the vermis of the cerebellum.
- 3 and 4. Lateral bundles of mixed nerves being (like 1) paths for centres of reflex motions in the medulla oblongata. 3 and 4 contain some sensory fibres, originating in the posterior horns.
5. Goll's bundle, ascending nerves, which can be traced to the gray nuclei in the funiculus gracilis of the medulla oblongata.
6. Cerebellar fibres, pass through the corpus restiforme and connect the posterior horns with the cerebellum.
7. Pyramidal bundles. Indirect or decussated tract.
1. Direct pyramidal bundles.
- v. Anterior roots.

Posterior Part.



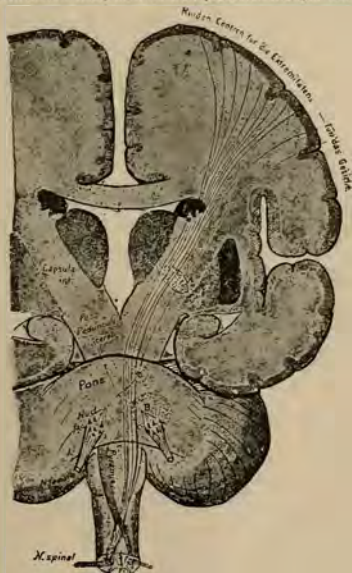
Anterior Part.

TRANSVERSE SECTION OF THE SPINAL CORD. Reproduced from Edinger).

The diagram represents the course of various fibres; sensory nerves (1, 2, 3, 4) entering the posterior horns; motor nerves passing out from the anterior horns; and commissural fibres, bringing certain gray centres into relation with one another.

The sensory cells are of globular, the motor cells of pyramidal form, imbedded in the posterior horns is Clark's Column (*columna vesicularis*) which can be traced from the lumbar region up to the cervical region and reaches most probably into the medulla oblongata.

The mechanism of the sensory or posterior horns is apparently much more complicated than that of the anterior or motor horns. Between the gray cells and the marginal layer, (called by Lissauer *zona terminalis*), there is a gelatinous substance (*substantia gelatinosa Rolandi*). Moreover all the nervous irritations transmitted through sensory fibres, have to pass through a network (*zona spongiosa*) in which the connection between the processes of the gray cells and their respective fibres ceases to be visible. The continuation of fibres to their cells is solely inferred from processes of degeneration.



PYRAMIDAL BUNDLES AND FACIAL NERVE (Reproduced from Edinger).

The diagram shows how different situations of diseased portions will produce different effects.

A tumor in the left capsule (A) will produce paralysis in the muscles of the right portion of the body. A tumor in B will affect the facial nerve of the left side and some of the muscles in the right extremities. A tumor in C will affect part of the right facial nerve of the right pyramidal bundles.



THE MECHANISM OF THE PYRAMIDAL FIBRES.



SEVERANCE OF SPINAL CORD (After Strümpell).

The spinal cord was cut in C. In consequence thereof we find after the lapse of a few weeks an ascending degeneration of sensory nerves (as seen in A and B), and a descending degeneration of motor nerves (as seen in D and E.)

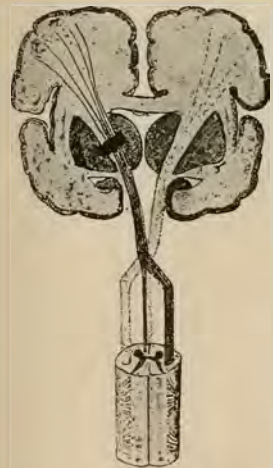


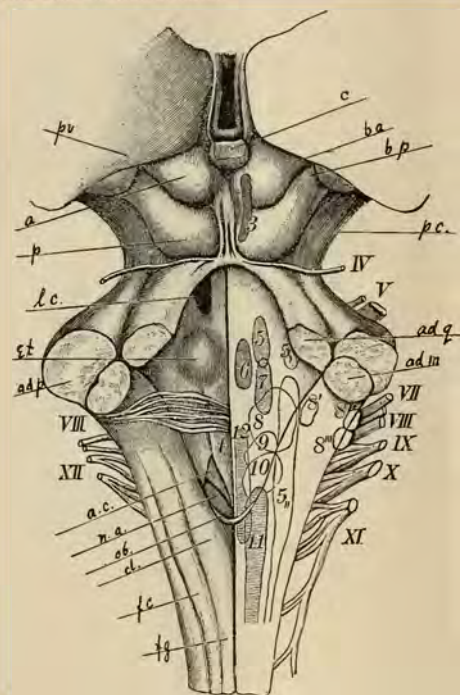
DIAGRAM OF THE PYRAMIDAL BUNDLE.

(Reproduced from Edinger.)

Showing the degeneration of the direct fibres on the left, and of the indirect on the right side, in consequence of a tumor in the left capsule interna.

The adjoining sections (After Erb) of the spinal cord show the same process viewed transversely.

The bulb or *medulla oblongata*, the continuation of the spinal cord, is, as the seat of the most vital reflex centres, of extraordinary importance. It is here that, with two exceptions, the most important higher nerves originate. These two exceptions are the First and Second nerves. The First Nerve (the olfactory) stands in close connection with the cerebrum or hemispheric part of the brain; the Second or Optic Nerve with the *thalamus opticus* and the optic lobes (*corpora quadrigemina*). All other nerves that are higher developed and more differentiated than the spinal nerves, have their roots in the *medulla*.



BULB OF MEDULLA OBLONGATA. (Reproduced from Landois).

- pv*. Cuneiform or pineal gland.
ba. Pulvinar or cushion, i. e., lower part of thalamus opticus.
a and *p*. Four hills (Corpora Quadrigemina). *a*. Anterior hill. *p*. Posterior hill.
ba. Brachium conjunctivum anticum, i. e., tracts of nerve-fibres leading to the anterior hill.
bp. Brachium conjunctivum posticum, i. e., tracts of nerve-fibres leading to the posterior hill.
pc. Pedunculus Cerebri, nerve-tracts to the hemispheres.
 There are three pairs of Peduncles on which the small brain hangs:
ad p. Ad pedunculatus. Connection with the bridge.
ad m. Ad medullam oblongatam. Connection with the Medulla oblongata, and further down with the spinal cord.
ad q. Ad corpora quadrigemina. Connection with the posterior hill.
lc. Locus ceruleus, bluish spot.
cl. Clava, a club-shaped bundle.
fc. Funiculus cuneiformis, being a part of a nerve-bundle called "the Rope" or *corpus testiforme*.

The following reflex centres are situated in the *medulla*, viz.: those that effect—

- (1) The closing of the eye-lids;
- (2) Sneezing;
- (3) Coughing;
- (4) Sucking and chewing;
- (5) Secretion of saliva;
- (6) Swallowing;
- (7) Vomiting; and
- (8) Contraction of the iris.

There is in addition to these reflex centres a super-ordinated centre, which combines the different centres among themselves so as to make complicated reflex motions possible without interference of cerebral activity. This superordinated centre is situated in the rabbit about 6 mm above the *calamus scriptorius*. Its presence is proved by experiments on decapitated frogs, lizards, eels, and also on mammals in which the *medulla* has been severed by dissection from the upper parts of the nervous system. (Proved by the experiments of Sig. Mayer, Luchsinger and Owsjanikow.)

The reflex centres of breathing seem to be of a complex nature. There are two centres in the *medulla*, one for inspiration, the other for expiration, and both are automatic. They continue to work even after the section of all sensory nerves, and depend upon the blood circulation; venous blood operating as an irritation for breathing.

Flourens has localized the *noeud vital* or centre of breathing, on both sides between the nuclei of the accessorius and the vagus nerves. But further researches

- fg*. Funiculus gracilis, the continuation of the clava.
cl. Eminentia teres. A tubercle covering the nuclei 5, 6, 7.
t. Funiculus teres.
na. Nucleus accessorius.
ob. Obex. The bolt, crescent-shaped oblique fibres.
ac. Ala cinerea, a layer of gray substance of triangular shape. This portion of the fourth ventricle is called *calamus scriptorius* from its fancied resemblance to a pen.

The Roman numbers represent the nerves and the Arabian numbers their respective nuclei in the deeper layers of the medulla, where the nerves originate.

The first nerve is the olfactory. It enters the hemispheric part of the brain through several roots.

The second nerve is the Optic nerve which stands in connection with the *thalamus opticus* and the Four hills.

These two nerves do not appear in the adjoining figure.

3. Nucleus of the oculo-motor or third nerve is the main source of motor innervation in the most important muscles of the eye. The nerve passes to the front between the two crura; accordingly the nerve (*III*) is not visible in the adjoining cut. Other ocular nerves are the fourth and the sixth.

4. *IV*. Trochlear nucleus and nerve. A motory nerve going to the trochlea, the hollow of the eye innervating the muscle which makes the eye roll.

5. *V*. Trigeminal nuclei and nerve. A nerve rising from two nuclei and dividing into three branches, going to the face. It serves motory impulses as well as for the reception of sensory impressions.

6. Abducens nucleus. The nerve, because passing out in front, like the third nerve, is not visible in the cut. It is a motory nerve and innervates the muscle that moves the eye toward the side.

7. *VI*. Facial nerve. A motory nerve for the muscles of the face.

8. *VIII*. Acoustic nucleus and nerve, the sensory nerve of hearing.

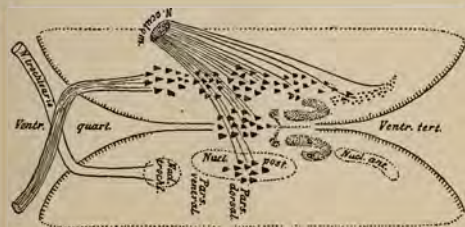
9. *IX*. Glossopharyngeal nucleus and nerve, a sensory nerve, receiving mainly the impressions of taste.

10. *X*. Vagus nucleus and nerve, a mixed nerve of motor and sensory fibres innervating the heart and the lungs.

11. *XI*. Accessory nucleus and nerve. A nerve, communicating with other nerves, having mainly a motory character.

12. *XII*. Hypoglossal nucleus and nerve. The motor nerve for the tongue, being of special importance in man because it regulates the mechanism of speech.

have proved that the mechanism of breathing is more complex still, for there are some subordinated spinal centres which even after the section of the *medulla* keep up certain motions in the thorax. (Proved by Brachet, Lautenbach, Langendorff, and Landois.) Besides some superordinated centres have been discovered in the posterior hill of the *corpora quadrigemina* (by Martin and Booker) and in the *thalamus* on the bottom of the third ventricle (by Christiani).



THE NUCLEI OF THE THIRD AND FOURTH OR Oculo-motor AND TROCHLEAR NERVES. (Half diagrammatic, after Edinger.)

Showing the complexity of the mechanism in the origin of nerves. *a* and *b* are two gray hook-shaped nuclei, the connection of which with the oculo-motor is as yet uncertain.

The action of the heart is regulated chiefly through the *nervus vagus* and *nervus sympathicus*. There are inhibitory as well as accelerating fibres. An irritation of the vagus produces a decrease of the activity of the heart, while an irritation of the first pectoral sympathetic ganglion produces an acceleration. This part of the nerve was accordingly called *Nervus accelerans cordis*.

The reflex motions of the *medulla oblongata* may, but need not be connected with consciousness; they are of a higher and more complex order than the direct reflex motions of a simple ganglionic mechanism and are represented in the adjoining diagram.

The *medulla oblongata* may be considered as the seat of the vegetative soul; since a destruction of its most important centres will always cause instantaneous death.

The *medulla oblongata* possesses to some degree the faculty of adaptation to circumstances as has been proved by the famous frog-experiment. A decapitated frog in which the spinal cord and *medulla oblongata* are preserved, all higher centres being severed, will scratch itself with its right leg, if irritated on the right side of its back. When the right leg is amputated, it will after a few vain attempts with the stump, try to remove the irritant by means of its left leg.

This experiment proves that the soul does not dwell in one part of the nervous system alone; but that every part is endowed with soul-life. Every ganglion is a

seat of soul-life. The activity of every reflex centre is no mere physiological phenomenon. The lowest reflex centres of irritable substance possess the power of adaptation to circumstances; the *medulla oblongata* being a higher, a superordinated and more complex centre, possesses this in a greater degree than simple ganglions. Yet there is one further step needed for changing irritability into distinct and definite feeling. This is created through the possibility of comparing the present irritation with the memories of former irritations—not only of the same kind, but of all kinds. Such a possibility is established in the brain, which is the coördinative organ of soul-activity.

The brain is a storehouse of all kinds of memories. All irritations received in the peripheral sense-organs are, as it were (to use Meynert's expression) projected into the hemispheres. There they leave traces or vestiges: every different impression leaves a vestige of its own; and these vestiges are living memories, pictures of impressions, i. e., structures of a special form produced through irritations of a special form. These memories are so to say deposited in the brain and represent the outside objects through contact with which they have been produced. Being representative of things or of natural phenomena they are symbols of the surrounding world and make cognition possible.

The mechanism of the brain is so arranged that all the different memories are properly interconnected thus making a comparison among them easily possible.

P. C.

CORRESPONDENCE.

A JOURNALIST'S CONFESSION. BOSTON, 2001.

DR. LEETE'S ANSWER TO JULIAN WEST.

(COMMUNICATED THROUGH S. SCHINDLER.)

My Dear Julian:—Your last letter, although I noticed therein your ill-hidden feeling of disappointment and the pain which the failure in your journalistic enterprise has caused you, made me rather smile than grieve for you. I hope, dear Julian, that you will pardon my apparent lack of sympathy, and if you will accept from me a fatherly word, there may be a chance that the wound which your pride has received may soon heal. The short and long of your letter is that, although at your time you had never received a journalistic training, you have ventured to enter upon a journalistic enterprise even before you had made yourself thoroughly familiar with our present conditions, and that you have failed. Owing to your marvelous appearance among us, we gave you something to do which we thought would meet with your taste. We thought that as a teacher of ancient history and especially of the history of the nineteenth century, you might do some good to the community and thus give an equivalent for the support the community grants to you. Yet, before hardly a year has passed by, before you could have hardly familiarized yourself with the needs and wants of our present time you have had the presumption—pardon the harshness of my expression—to criticize us and to teach us what we ought to do. Again, owing to the sensation which your sudden appearance among us had created, quite a number of good-natured people were found ready to subscribe for

the *Trumpet*, as you pleased to call your paper. Good-naturedly they were satisfied to give you a chance and to hear what you had to say to them. If you had ever considered it worth your while to ask me about it, I would have told you to leave well enough alone; I would have told you that as little as an Indian, at your time, could have been made a member of your civilized society by merely taking him from the prairies and dropping him into the streets of Boston, so little can a person that has been reared in different conditions and under the former system of individualism at once comprehend our social conditions, sympathize with them, and appreciate them; I would have told you that first of all you ought to learn the A B C of journalism; I would have told you that, although every one of us has indeed the right of expressing his opinion, nobody must think that his opinion is the *ne plus ultra* of human wisdom or that after he has expressed it the whole world must at once become convinced of it. If you then had heeded my advice, you would have escaped the ridicule that always attaches to failure and the consequent pain caused by the disappointment. You did not ask me, but you went to work, got up a subscription-list and began to issue the paper. What kind of a paper? A journal after the fashion of the last century and not after the fashion of ours. Would you have expected in the year 1890 a paper to flourish that was issued in the style of the year 1790? This misplacement of time which we all find quite natural in you has been the sole cause of your failure. I do not wonder that the journals as we have them do not suit you, and that therefore you desired to establish one that would suit your taste better; but you forgot that the style which would suit you because you had become accustomed to it must not necessarily suit everybody else.

At your time, a paper contained four distinct departments.

1. The department most interesting to the public was the news department. People wanted and needed to know what has happened all over the world; and many more things did happen then than do to-day. At your time, columns of a newspaper were filled with the description of crimes that had been committed, of wars that were waged; to-day nothing of the kind occurs. At your time, people wished to be informed what the members of the aristocracy or the plutocracy were doing, how they amused themselves, what dresses the rich ladies wore, what summer resorts they were seeking, etc. Who would care for such trash to-day? At your time, the quotations of the market, the rising and the falling of stocks had an all absorbing interest. It was necessary for every business man, for every manufacturer, for every capitalist to know whether gold has gone down one point or silver has risen; to-day we have no exchange, money has ceased to be the pendulum on the clock work of human society and such events do not occur. Whatever remains as "News" and what is of interest to the public is supplied by the "National Bulletin."

2. The second department of your newspapers and the one which interested the editors and the stockholders most was the advertising department. Your pronounced individualism and the spirit of competition which arose in consequence of it made it a necessity to push oneself before the eye of the public; "Don't care for anybody else but buy from John Jones," was the tenor of all your advertisements. If people had something to sell or if they wanted to buy an article; if they were seeking help or were wanting employment they had to make use of the advertising columns of your newspapers. This, of course, does not apply to us. Whatever articles a person wishes to purchase, he can find in our distributing department and whatever help is to be employed, can be obtained at the National Employment Bureau. There being no demand for advertising columns the supply of course has ceased.

3. The third department of your newspapers was the belletristic department. It reached its highest development at the close of the last century. There was not a newspaper in the land that would not supply its readers with stories of all kinds, mostly of a

sensational nature. The novelists who wrote for a journal were told that they must not write stories that contain more than about 40,000 to 50,000 words, that after every 2,000 words the reader must be kept in suspense in order that he may be induced to buy the next paper, which was to contain the continuation. This kind of newspaper literature flourished because people had absolutely no time to sit down and read a book. If they intended to feed their imagination they had to snatch away a moment here and a moment there; this want the newspaper supplied. People could read such a story while they were riding in the street cars, or while they were eating their luncheon. As every person was obliged to buy a newspaper anyway, if he wished to be informed of the occurrences of the day, the novel which he bought with the paper did not cost him anything extra. All this is changed to-day. We have our comfortable libraries, we have sufficient means to buy a book that we wish to own, and what is more, we have the time to read it carefully. Your newspapers struggling for existence were obliged to cater to the public taste and to embody in their columns all that might induce people to patronize them. In our days, it would be considered absurd to cut up a story into a number of daily or weekly installments. You complain that you were obliged to reject a story that was sent to you for publication on account of the tendencies which it contained and which ran counter to the supposed sentiments of your patrons. I am astonished that a person was found indeed who would endeavor to publish a literary production in this way and I am rather inclined to think that the writer, knowing your antiquated ideas of newspapers, merely wished to pass a good joke on you.

4. The fourth department of your newspapers was finally the editorial department. The editor made use of his opportunities and offered to his readers his comments and opinions on all matters of public interest. You were accustomed to be awed by authority and the editorial of a newspaper of large circulation was not taken as the opinion of the one man who wrote it, but as the expression of the public itself. Again, because you had no time to consider carefully a topic, the editorials, at your time, had to be short and brisk. The government, furthermore, was always supposed to stand in opposition to the public will, even when chosen by an overwhelming majority of the people; the administration was always looked upon with suspicion, and fault was found with almost every step which a president or a governor took. If officials pleased a certain party, they could be sure to displease the other, and thus as each party had its organ, the editorial columns were devoted to a constant warfare for or against the government. At your time, this was not more than natural, because every act of the government needed careful watching, inasmuch as individual interests were at stake. The suspicion was always near that the motives of an administration were sordid, and that having come in possession of power he would use it to enrich himself at the expense of others. All this has been changed, our officials are not suspected, they are rather honored, admired, and their work appreciated by the public. They need not to be watched, because although the wealth of the whole country is in their hands, they cannot make more use of it for themselves than you can or I. The trouble with you, my dear Julian, is that your ingrained individualistic tendencies are still blinding you and that on account of your early education you cannot understand how a government should not need the watching or the criticism of the press. What was a necessity and a very good thing at your age has ceased to be so in ours. If some of us think that he has a suggestion to make he can do so by bringing it to the notice of the superior officer, through whom it will reach headquarters, or if he thinks that his propositions have not received the proper attention he can publish what he has to say in pamphlet form. If it is good it will spread without much advertising; one will tell the other, and in a short time the people will see to it that his proposed reforms are brought

about. If, on the other hand, his propositions seem good only to him and to a few others and will not strike the people as founded upon common sense, they will fall flat and be ignored.

Now, in fact, we have not got newspapers or a press as you had them, nor do we need them. We are satisfied to let you have your way, but if you have failed in your enterprise, please do not lay the blame before our doors, but see to it first whether it does not lie with you.

One more point of your letter I cannot help touching. You say, somewhat sneeringly, that a social system once instituted must be preserved at all hazards, merely because some time ago it has been created. As soon as we shall find that the social order which surrounds us ceases to be beneficial to us; as soon as we shall find that any individual or any class of individuals is unduly benefited by it while another individual or another class of individuals is unduly debarred by it from happiness, we shall surely change it and not hesitate a moment. No, no, my dear Julian, do not borrow troubles. Behold what a glorious institution ours is! Learn by your own experience! Supposing a person would have come to you in the 19th century as you came to us, could he have found at once a place in which to make himself useful? Or, supposing that you, at your time, should have been infected with the ambition of becoming an editor, how would you have succeeded at your time without a thorough knowledge of the work? You might have undertaken the task, as did many of your contemporaries. As you were rich you could have pushed the enterprise with money, but supposing you had failed to strike the right chord, supposing that your editorials would not have met with public approbation, you would have become beggared. With the loss of your fortune you would have lost your seat on the top of the coach, you would have been compelled to take your turn on the rope and your former friends would have had no sympathy with you; at best they might have thrown to you a gift of charity. Now, although unsuccessful, you can return to the work for which you have some fitness, and after a time, you may try again to climb upon an editorial chair.

Yours truly,

LEETE, M. D.

P. S. Mother and myself send love to Edith and the baby.

THE DANGER OF ANARCHY IN THE TWENTY-FOURTH CENTURY.

HON. EDWARD BELLAM, V.

Master-Workman of the Labor Army of the United States of America

Glorious great-great-great grandson of the Legendary Author of "Looking Backward"!

Please do not drop this letter into the waste-basket because it is anonymous. It calls your attention to an urgent need of the time, which if not attended to speedily may undermine our whole system of civilization.

I abhor the barbarism of former centuries and fear nothing more than a return to the wolfish state of competition which, if the report of our historians be true, prevailed during the reign of anarchy up to the end of the nineteenth century. I am anxious for the general welfare of humanity which you so generously try to promote. Yet I write this letter anonymously because I fear to be sent to an asylum for atavism, as so often happens to men who venture an opinion that happens to disagree with that of the representative men of our glorious nation.

One of my brothers committed suicide a few days ago in the asylum where he had been confined for over thirty years, after the physicians had proclaimed him a hopeless case of atavism. His ailment was the belief that our nation made rapid regress in civilization. He had been careless enough to declare publicly that the state was run by a few bosses in Washington, who proved

worse tyrants than the legendary Czar of Russia, of whom we read in our Readers. He said that he would prefer to live under a form of government such as we possessed a century ago.

The physician said that my poor brother had committed suicide from mere weariness of life. He used to say that a state of perfection like that in which we live is the most monotonous and intolerable existence possible. Nothing happens; there is no progress imaginable; there are no aims for the ambitions of a man and he would prefer the Hell of a competitive Society to the heaven of a coöperative system where there is no elbow room for individual exertion.

I pity my poor brother. No doubt he was grievously sick. But the worst of it is that the disease is dangerously spreading, even among the physicians. It must be contagious. The asylum of Chicago alone confines 124,783 patients suffering from this particular kind of atavism. The figures will soon reach fifty per cent. in our State. Happily they are excluded by law from the little voting that is done. If that were not so, our government under your glorious Presidency would soon be overturned. Yet be on your guard! Matters are growing worse every year. There is an annual decrease of the returns in the harvest, and I do not know what would become of things, if in this peaceful era our labor army were not possessed of a real ovine patience.

Congress has not met for over thirty years; and when it met last time, it decided in the truly conservative spirit that distinguishes our age, not to meet again during the next fifty years, "lest anything be done hastily."

I propose, dear sir, that Congress be convened before that time, and that a bill be passed to allow all those who suffer from atavism to emigrate into another country, for, here among us, they are a most dangerous element. They will soon form themselves into a party, and as soon as we have parties the old barbarism of party-strife will begin over again as of yore. Is not party-strife one kind of competition? Now imagine that instead of the present order of coöperation, where every man is put in his place, we should compete for our places, what a general anarchy would prevail! What would be the result, if a farmer allowed his oxen to compete as to who should draw the plow and who the dung cart; how could his farm prosper? It cannot be so among civilized humanity. Like the oxen of the farmer every man should be allotted his place and should receive as a compensation for his work food and shelter. So let it be and so let the state of coöperative humanity remain. But be on your guard lest anarchy overturn our civilization.

I remain, dear sir, your obedient servant,

CHICAGO, Ill., April, 2352.

* * *

[These letters, dating from the twenty-first and twenty-fourth centuries, that have been received at *The Open Court* and now appear in its columns, are a decided progress in the mediumistic science. Our spiritualistic contemporaries have hitherto published letters from the departed only. *The Open Court* publishes letters from the generations unborn. Very well! It is a satisfactory proof that *The Open Court* is a medium through which the Spirit of the Future speaks.—E.]

THE MOTE AND THE BEAM.

A LETTER TO THE BOSTON INVESTIGATOR (PUBLISHED APRIL 9).

MR. H. L. GREEN, in his last letter to the *Investigator*, says:

"And I here request Mr. Carus, as a 'true Liberal,' as he claims to be, to inform the world, first, what he had reference to when he declared that 'the mote in Mr. Gladstone's eye was insignificant in comparison to the beam in Col. Ingersoll's eye.' Second, to state what he is doing as a 'true Liberal' in the 'positive and constructive' line of Liberalism that he would like to see Col. Ingersoll engaged in."

These are two square questions, and at once bring us to a definite issue. I shall answer both as briefly as possible, and it may be that after all we shall come to a mutual understanding.

First, the negative side of our issue. The remark about the

mote and the beam was not made in depreciation of Col. Ingersoll, whose intellectual and moral qualities I appreciate perhaps no less highly than his most enthusiastic admirers. The expression was not intended as an insult, but as a criticism; and no impartial reader, unless, like Mr. Green, he had been in a state of excitement, could have taken the remark in a different sense.

And now the positive side of my answer. All theologians are agreed upon this—that the purpose of religion is and always will remain morality. However, there are many among them (we call them dogmatic theologians) who deny the possibility of establishing the moral *ought* upon a scientific basis. Thus, they believe that a supernatural revelation is needed for the support of ethics. In this we declare they are mistaken, and their error is the mote in their eye.

Col. Ingersoll has accomplished a great work in exposing the superstitions of dogmatic religion. He has advanced the cause of humanity by clearing the ground for a purer religion. But if he goes so far as to tear down the very basis of society, if he repudiates the necessity of the moral *ought*, obedience to which is the indispensable condition of order, liberty, development of individuality, and the progress of humanity, we must declare that he blindly overlooks the most important factor in the evolution and formation of human life. Col. Ingersoll, in his love of freedom, goes too far when he proposes to sever every tie that binds us to the fulfillment of certain moral rules. As an example of the error which I criticize, I quote from Col. Ingersoll's last contribution to the *Truthseeker* on "Destructive and Constructive Liberalism" (a reprint of which appeared in the Boston *Investigator*) the following passage:

"All religious systems enslave the mind. Certain things are demanded, certain things must be believed, certain things must be done, and the man who becomes the subject or servant of this superstition must give up all idea of individuality, of hope, and growth, and progress."

Col. Ingersoll has put his thought into words which, as they stand, would convert liberty into license, for they establish the most unbounded individualism, and deny the existence of any moral authority. That "certain things must be done," that "certain things are demanded," Col. Ingersoll declares to be a "superstition," "and the man who becomes the subject or servant of this superstition," he says, "must give up all idea of individuality or hope of intellectual growth and progress."

It is this error which I call the beam in Mr. Ingersoll's eye. It appears to me so gross an error that I cannot believe that Col. Ingersoll, when writing this sentence, comprehended its sweeping significance. Moreover, it does not agree with many other utterances of his in which he unmistakably acknowledges the supremacy of a moral law that governs the growth of human society.

The moral law that governs the development of human society is a natural law, and we know by experience that whenever it is disobeyed it will cause disorder, and consequent thereupon, misery, affliction, unhappiness, and ruin. The moral law is a thing, obedience to which is demanded. We maintain that its truth can scientifically be proved, and those who cannot grasp it must needs believe in it. We cannot disregard it, we cannot ignore it, but we have to conform to it. Upon a rigorous obedience to this law all individuality, all intellectual growth, all social growth, the realization of our ideals, and the progress of mankind, depend.

The recognition of the moral law as an inflexible factor, in the nature of things, is the sum total of all that is meant by the words "Natural Religion." You may call it, also, the "Religion of Science." It is a religion without dogmas, not based upon a special revelation, but upon the facts of natural laws, ascertainable and verifiable by science. The presence of the moral law is not a new dogma; it is a scientific truth, as undeniable as the law of gravitation.

What I mean by "Constructive Liberalism" is expressed in the two words: *Ethical Liberalism*. That Liberalism alone which teaches us the proper way to live, can be said to be constructive. And the rules of right living cannot be derived from our individual likes or dislikes; it is not a matter of private pleasure. The rules of conduct must be established upon the unalterable natural law that shapes human society—which being the power that enforces morality, we may very aptly call the moral law.

The clergy remain deaf to the demands of Liberalism, mainly because they are under the impression that Liberalism intends to subvert morality. And can they otherwise interpret Liberalism when they are told that no authority whatever ought to bind us, and that the pleasure of the individual should rule supreme?

Mr. Green asks me what I am doing as a "true Liberal" in the "positive and constructive" line of Liberalism. Every number of *The Open Court* is an answer to this question, and in every number he will find the truth emphasized that there is but one religion, and that is the Religion of Science. And particularly what I mean by the mote and the beam is fully explained in No. 130.

The tenets of *The Open Court* are fiercely attacked by dogmatic believers on the one side, and dogmatic unbelievers on the other side; but neither party has as yet succeeded in bringing forth any tenable argument against the propositions of *The Open Court*. When I declare that God, if the word God means anything, means the moral law to which we have to conform, the dogmatic believer calls me an Atheist, and imagines that this settles the question. On the other hand, when I say that the moral law (the immanent God) is an abstract idea which, being abstracted from reality, represents something real in exactly the same way as do all the natural laws, the so-called Liberal declares that I propose a mediæval creed, and attempt to reinstate the antiquated superstitions of past ages.

The abstract idea of gravitation represents something real, and we have to adjust the movements of our body accordingly. So the abstract idea of the natural conditions in which man stands to Nature, and of the sociological law that underlies all the relations between man and man, is something real; and we have to adjust our behaviour accordingly.

What humanity wants is a practical, i. e., a purely moral religion, based upon facts stated with scientific accuracy and philosophical breadth. This is the constructive work needed, which, if the churches refuse to do it, devolves upon Liberalism. This is the constructive work in which I should like to see Mr. Ingersoll join hands. Slaying dead ogres and ridiculing stories which no man of education—be he ever so Orthodox—any longer believes, is a very amusing pastime, but a man of great talents can, in my opinion, do better and more useful work. I feel confident that Col. Ingersoll is called to greater tasks.

Let me add one remark in answer to another attack made upon me in your columns.

Some so-called Christians, and also some so-called Liberals imagine that they promote the interest of their party by misrepresentations of all views which are not congenial to theirs, and they try to support their denunciations by quoting disconnected passages, the meaning of which, by a slight turn, becomes easily distorted into absurdity. Thus, one of your correspondents ridicules the idea that form is the soul of things, and that the soul of man is the form of his organism. He adds that roundness accordingly would be the soul of an apple.

In way of explanation, let me add that the form of an apple does not mean merely the outside shape, but also the inner structure, all the delicate tissues and the arrangement of its substance. Form, in this sense, is that which makes a thing the thing it is. Indeed, it is a very old truth that the soul of man is the form of the human organism. Old Edmund Spenser, the poet, says:—

"For soul is form and doth the body make."

But this truth has been overlooked and ignored, and there are even to-day many Freethinkers who have no idea of the importance of form and formal thought.

Any one who misrepresents the views of those who hold a different opinion may be a good partisan, but he does not work for the progress of mankind, and he will not enhance Liberalism. Liberalism, in my mind, is not a party, but a principle. If the Liberals are a sect I do not belong to them. The true Liberal is no partisan, but a disciple of truth.

PAUL CARUS.

Chicago, Ill., March 7, 1890.

THE BASIS OF ETHICS AND THE ETHICAL MOVEMENT.

We are strongly in sympathy with the Societies for Ethical Culture, because among all the liberal movements of ethical aspirations they show the greatest sincerity and earnestness with regard to moral ideals. Yet there is a point of fundamental importance in which we have not as yet been able to ascertain whether we agree or disagree with them. It is the problem as to what is the basis of ethics. The solution of this problem is for every one of greatest importance, it must become the corner-stone of the ethical movement, and it is concerning this problem and its solution that we are anxious to come to a mutual understanding.

The Ethical Record says: "We think there is some lack of clearness as to what a basis of ethics means."

The basis of ethics is the 'reason why' man must regulate his actions in a certain way, and thus it is the philosophical foundation upon which ethics rests. The moral 'ought,' which involves that which we call good, depends upon the basis of ethics. Our definition of 'good' will be different according to the different answers given to the question, Why must I feel bound by any 'ought' or 'moral law'?

It might be maintained that a philosophical foundation of ethics is of secondary importance: the first demand is to obey the moral 'ought.' And certainly we admit that action is more than knowledge. But let us not forget that ethics if it means anything is the regulation of action conformably to some principle or maxim. The ethical man is first of all a thinking man. He acts in a certain way because he considers this kind of action as good and another as bad. What would ethical action be without the ethical principle by which we have to regulate it?

Man "considers" something as good, we say. But the question is not what a man considers as good. The question is, What are good, and what bad, actions? Professor Adler says: "Concerning them (the facts of moral obligation) there is a general agreement among good men and women everywhere." This is an ethics of mere conventionalism. Moreover, that general agreement is an error; for while the Spartan thought stealing without being caught was a virtue the Athenian considered it a shame. Yet Prof. Adler limits the agreement concerning these facts as obtaining 'among good men and women.' This would stamp everybody who disagrees from Prof. Adler, as bad; and that can scarcely be his meaning.

The answer given by *The Ethical Record* to the question, Why we should act morally? is: "We conceive that the obligation of justice and love is self-evident to rational beings." This conception of ethics would be intuitionism, a theory which we thought belonged to the dead past.

Justice and love are admirable words, but they are too general to give a clear idea regarding what they mean. We all agree that justice and love must be the impulses of our actions. In the name of justice and love the anarchists demand the abolition of all law, the nationalists demand the removal of 'wolfish' competition, the single-taxer asks for the confiscation of land, and for justice and love charitable people feed paupers. How widely different must their conceptions of justice and love be!

The very same question as to what the basis of ethics in the ethical movement may be, is asked by every one who takes an interest in the ethical societies; and there are many outsiders besides Dr. Abbot who are deeply interested in the matter. If the ethical societies do not increase as they ought to, it is, it appears to me, because they have no definite opinion, they lack a foundation upon which to stand, they try to be broad and become vague.

The *Nation* in a long and most appreciative review of Mr. Salter's book "Ethical Religion," has made, from quite a different standpoint, the same complaint that Dr. Abbot presented. The reviewer says, after a discussion of not less than three columns:

"After all, however, the unsatisfactory thing about these excellent lectures, even regarded from the practical point of view, is just the vagueness of the author's moral theory."

"To be all things to all men is, indeed, the privilege of an apostle; but to appeal to anything and everything plausible except theology as a support to morality—is this enough? If one leaves behind what one takes to be superstitions in tradition, may not one end in making one's morality itself a superstition? And if the laymen of the Ethical Societies should chance to meet such an outcome, what result could be more lamentable?"

There is no doubt that the future religion will be an ethical religion; and that which humanity wants is a new basis of ethics, viz., the why of the moral ought. Schopenhauer says "to preach morals is easy but to place it upon a philosophical foundation is difficult." *Moral predigen ist leicht, Moral begründen schwer.*

The Ethical Record says: "The ethical movement has taken special pains not to commit itself to the philosophical views of its lecturers." The ethical lecturers represent the ethical movement and if the ethical movement has taken particular pains not to commit itself to their views, this is equivalent to saying that it has no views whatsoever. The ethical movement, we are informed, "made a statement of its aim (in the constitution of the 'Union') after mature consideration, and expressly welcomes to its fellowship those who sympathize with its aim (the elevation of the moral life) whatever their theological or philosophical opinions." How can we have a common aim in the "elevation of the moral life," if we are not agreed upon what a moral life is, if our philosophical opinions about good and bad differ? If the ethical movement welcomes people of any creed and of no creed, they cannot expect that its members will have the same or even a similar and harmonious ethical ideal.

To have an opinion and to dare to be of one's opinion; to stand up for it bravely; and in case we have not as yet an opinion of our own, to search for it and have no rest until we have found it,—this is the very first step in ethics, the most indispensable condition of ethics. The man who has a wrong opinion and holds it in good faith is more ethical than he who waives the question. How can we, when building a good house adapted to our needs, invite all our neighbors to assist us, whatever be their opinions with regard to the plan of the house, with regard to what must be understood by a good house?

Before we commence building let us have a plan. Philosophical views and also theologies are by no means mere theories having no practical value. They are, or rather they have to become, the maxims and regulative principles of our actions; and any ethics without a philosophical view back of it is no ethics, but ethical sentimentality. It is like a wanderer in search of a goal, who has lost his way and does not care to be informed about the right direction.

We maintain that dogmatic religion can no longer serve as a basis for ethics. In the old religion the "why" of the moral ought is explained by the will of God. We are told that God has spoken through the mouths of his prophets; he has revealed himself. We no longer believe in the possibility of a supernatural revelation and search for another and a natural reason why we should live morally. If the ethical teacher preaches the moral ought, every body in his audience has the right to ask the ques-

tion: "By what authority dost thou sustain this command?" If the moral ought of the ethical teacher is merely an expression of his individual opinion, he has no right to preach it to others. If he no longer believes in the supernatural God, he must give account of that God who gave him the authority to preach.

The ethical movement, as I understand it, is started because dogmatic religion no longer suffices as a basis of ethics; accordingly it must lay a new basis that will suffice. If the ethical movement refuses to do this, it has no meaning. The leaders of the ethical society should not hesitate to commit themselves to definite opinions. They should speak out boldly and with no uncertain voice. A non-committal policy in the face of other views, religious as well as philosophical, is just as good as giving up the attempt altogether.

I find that many clergymen and many Rabbis are very clear-sighted on this matter; they seem to know the needs of the time; they earnestly and judiciously work for a purification of religion. And we wish that those who profess to carry out the ideal of the present age, namely, the foundation of a purely ethical religion, should not remain behind; they should know, and if they do not know they should search for, the ground upon which we are to stand. The question, What is the basis of ethics? is of paramount importance to all of us, to the religious dogmatist, to the freethinker, and above all to the members of the societies for ethical culture. The success of the ethical movement will in the end depend upon how their leaders solve this question.

We should be very much obliged to *The Ethical Record* if it would give us a simple, plain, and unmistakable definition of what the leaders of the Ethical Movement understand by good i. e., morally good.

P. C.

NOTES.

Among the humorous traits of the American character is our affected reverence for law, especially if "order" be coupled with it. And yet no other civilized people are so disloyal to "law and order" whenever those elements of government become inconvenient or expensive to our own particular selves, our party, or our clan. While vehemently proclaiming the duty of all others to respect the law, we reserve to ourselves the right of disobedience. We exempt ourselves by dispensation from the law whenever it conflicts with our own interests or inclinations. This indulgence we jealously deny to all our neighbors. The American maxim is: "The law was made for you, but not for me."

When a man declares by word or action that the laws of this land are not binding on him, we reprobate him as an anarchist and it is astonishing how many laws we ourselves may break, if we severely stigmatize as "anarchists" all others who do the same thing. When a magistrate, sworn to enforce the law proclaims by his official action that it is not binding on him, and when he throws police protection over those who violate the law, is that anarchy? And if not, would it be anarchy if practiced by an anarchist?

For instance, is this a phase of anarchy? April the first was election day in Chicago, and the laws of Illinois declare that whisky shops and beer saloons must not be open on that day. Under sanction of the Mayor this law was ostentatiously defied, by the connivance of all police authority in the city. It may be that the law is wrong, but that is not the question here. It is enough that it was repudiated by the magistrates who have sworn to enforce it. There are other laws on the statute books which are contemptuously overthrown in the same way.

This calm and dignified abdication of duty presents to us a few puzzling paradoxes not easy to explain, as for instance these: If a candidate for Mayor should in absolute sincerity declare that if elected he would not enforce the law, could he be elected? Surely not. And if on the contrary, he should say earnestly and be believed, that he would enforce the laws, could he be elected then? Surely not. In either case he would be defeated by any opponent who would promise to enforce the laws with a mental reservation understood by certain voting elements that in their behalf he would suspend the laws. He must promise one thing and mean another, or have no chance at all. He must recognize with due solemnity that the beer saloon is the unit of the American political system.

A few days ago the habit of official disrespect for law was brought to the notice of Congress. An honorable member offered a resolution to the effect that whereas it was reported that in certain of the United States courts the judges were in the habit of suspending sentences passed on prisoners, and whereas such suspensions were in violation of law, therefore that a committee of investigation be appointed, etc. The humorous feature of this resolution is that those unsuspecting innocents known as the American Congress have just discovered a vicious and illegal practice which has prevailed in the National courts for more than twenty years. This usurpation of the pardoning power has become a dangerous abuse of law. It is often employed as an element of tyranny and corruption. The illegal habit of suspending sentences has spread beyond the National courts to many of the State courts, and even those cold, hard, and sordid men who preside in the police courts, claim the suspending power as part of their prerogative, a perquisite which they make profitable in many ways.

M. M. TRUMBULL.

NOTES.

We shall publish in our next number two criticisms, from the nationalistic point of view, of "Looking Forward," the leading article of No. 134 of *The Open Court*.

We shall publish in the course of the ensuing week a little book entitled "Epitomes of Three Sciences," containing the series of essays contributed during the last two years to the columns of *The Open Court* by Professors Oldenberg, Jastrow, and Cornill. They are résumés of the three sciences of Comparative Philology, Comparative Psychology, and Old Testament History. Professors Cornill and Oldenberg have written special introductions to their treatises, and the editor of *The Open Court* has supplied a preface discussing the hearings of these three departments of investigation on the intellectual and religious problems of our day. The price of the book will be seventy-five cents. (The Open Court Pub. Co.)

La Revue Française, a monthly magazine of literature, art, and science, published in New York (39 W. 14th st.), and designed to meet the demand among American teachers and students of French for good French literature, has reached with March its third number. It resembles, although much more comprehensive in the scope of its selections and less didactic in its methods of exposition, a similar periodical in German, *Germania*, a magazine that has been noticed in our columns. We think the *Revue* would more competently serve the purpose announced in its editorial introduction by instituting a separate department devoted to instruction in French grammar and rhetoric. It might also be suggested in a spirit of friendly criticism that the sources from which the selections are taken be acknowledged, both for the benefit of the readers as well as by way of recognition to the journals in which the articles were originally published. But the *Revue* is excellent in its way; it responds to a legitimate demand, and we wish it a large circulation.

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MAX MÜLLER ON PHYSICAL RELIGION.*

THE SECOND COURSE OF GIFFORD LECTURES AT GLASGOW
UNIVERSITY.

III.

PHYSICAL religion is generally defined as a worship of the powers of nature. We hear it said of ancient as well as modern nations that their gods were the sun and the moon, the sky with its thunder and lightning, the rivers and the sea, the earth, and even the powers under the earth. As Aaron said to the Israelites, the poets and prophets of the heathens are supposed to have said to their people, "These be thy gods." There are some well-known philosophers who go even further, and who maintain that the earliest phase of all religion is represented by people believing in stones and bones and fetiches of all kinds as their gods.

As their gods? Does it never strike these theorists that the whole secret of the origin of religion lies in that predicate *as their gods*? Where did the human mind find that concept and that name? That is the problem which has to be solved: everything else is mere child's play. We ourselves, the heirs of so many centuries of toil and thought, possess, of course, the name and concept of God, and we can hardly imagine a human mind without that name and concept. But, as a matter of fact, the child's mind is without that name and concept, and such is the difference of meaning assigned by different religions, nay, even by members of the same religion, to the name of God, that a general definition of it has almost become an impossibility. It has led to the greatest confusion of thought that our modern languages had to take the singular of the Greek plural *Θεοί*, the gods, and use it for *Θεός*, God. It is quite true historically that the idea of *Θεός*, God, was evolved from the idea of *Θεοί*, gods; but in passing through that process of intellectual evolution the meaning of the word became changed as completely as the most insignificant seed when it has blossomed into a full-blown rose. *Θεός*, God, admits of no plural; *Θεοί* always implies plurality.

The problem of physical religion has now assumed a totally different aspect as treated by the historical school. Instead of endeavoring to explain how human beings could ever worship the sky as a god, we ask,

How did any human being come into possession of the predicate god? and we then try to discover what that predicate meant when applied to the sky, or the sun, or the dawn, or the fire. Our present concept of God excludes fire, the dawn, the sun, and the sky. The two concepts no longer cover each other. What we want to study, therefore, is that ever-varying circumference of the predicate god, becoming wider or narrower from century to century, according to the objects which it was made to include, and after a time to exclude again.

This problem—and a most difficult problem it is—can be studied nowhere but in the Veda, that is, in the ancient hymns of the Rîg-Veda. I doubt whether we should ever have understood the real nature of the problem with which we have to deal, unless we had become acquainted with the Rîg-Veda. It is quite clear that other nations also passed through the same phases of thought as the Aryan conquerors of India. We see the results of that process everywhere. In Africa, in America, in the Polynesian islands,—everywhere we catch glimpses of the process of deification. But the whole of that process is nowhere laid open before our eyes in such fullness and with such perspicuity as in the Veda.

Deification, as we can watch it in the Veda, does not mean the application of the name and concept of God to certain phenomena of nature. No; it means the slow and inevitable development of the concept and name of God out of these very phenomena of nature—it means the primitive theogony that takes place in the human mind as living in human language. It has always been perfectly well known that *Zeus*, for instance, had something to do with the sky, *Poseidon* with the sea, *Hades* with the lower regions. It might have been guessed that *Apollon*, like *Phæbos* and *Helios*, had a solar *Artemis*, like *Mene*, a lunar character. But all this remained vague, the divine epithet applied to them all remained unintelligible, till the Veda opened to us a stratum of thought and language in which the growth of that predicate could be watched, and its application to various phenomena of nature be clearly understood.

As illustrating the development of the predicate God from out the simplest perceptions and conceptions which the human mind gained from objective nature,

* From a Report in the London *Christian World*, copies of which were kindly sent us by Prof. Max Müller.

we will take from the Pantheon of the Veda the Deva, or god, called *Agni*, the god of fire. In the Veda they could watch that god of fire long before he was a god at all; and, on the other hand, they could trace his further growth till he was no longer a god of fire merely, but a supreme god, a god above all other gods, a creator and ruler of the world.

If you can for a moment, transfer yourselves to that early stage of life to which we must refer not only the origin, but likewise the early phases of Physical Religion, you can easily understand what an impression the first appearance of Fire must have made on the human mind. Fire was not given as something permanent or eternal, like the sky, or the earth, or the water. In whatever way it first appeared, whether through lightning or through the friction of the branches of trees, or through the sparks of flints, it came and went, it had to be guarded, it brought destruction, but at the same time it made life possible in winter, it served as a protection during the night, it became a weapon of defense and offense, and last, but not least, it changed man from a devourer of raw flesh into an eater of cooked meat. At a later time it became the means of working metal, of making tools and weapons, it became an indispensable factor in all mechanical and artistic progress, and has remained so ever since. What should we be without fire even now?

We can well understand how, after the senses had once taken note of this luminous apparition in its ever varying aspects, a desire arose in the human mind to know it; to know it, not merely in the sense of seeing or feeling it, but to know it in the sense of conceiving it, which is a very different thing. By calling the fire *Agni*, or the quick mover, the ancient people knew no more who or what that quick mover was, than we do when speaking of fire as an element, or as a force of nature, or as we do now, as a form of motion.

When the word *Agni*, fire, had once been coined, the temptation was great, almost irresistible, as *Agni* was conceived as an agent, to conceive him also as something like an animal or human agent. We may now advance a step further, and ask how it was that *Agni* in the Veda is not conceived as an agent only, but as a god, or, if not as yet as a god in the Greek sense of the word, at least as a Deva?

Here we touch at once the most vital point of our analysis. Certainly in the Veda *Agni* was called *deva*, perhaps more frequently than any other god. But, fortunately in the Veda we can still discover the original meaning of the word *deva*. It did not mean divine, for how should such a concept have been suddenly called into being? *Deva* is derived from the root *DJV*, and meant, originally, bright. In many passages where *Agni*, or the Dawn, or the Sky, or the Sun, are called *deva*, it is far better to translate *deva* by

bright than by divine, the former conveying a neutral meaning in harmony with the whole tenor of the Vedic hymns, the latter conveying hardly any meaning at all. But it is true, nevertheless, that this epithet, *deva*, meaning originally bright, became in time the recognized name of those natural agents whom we have been accustomed to call gods. We can watch the evolutionary process before our very eyes. When the different phenomena of nature representing light had been invoked, each by its own name, they could all be spoken of by the one epithet which they shared in common, namely *deva*, bright. In this general concept of those bright ones, all that was special and peculiar to each was dropped, and there remained only the one epithet *deva* to embrace them all.

Here then there arose, as if by necessity, a new concept, in which the distinctive features of the various bright beings had all been merged in that of brightness, and in which even the original meaning of brightness had been considerably dimmed.

You will now perceive the difference between our saying that the ancient Aryas applied the name of gods to the fire, the sun, and the sky, or our watching the process by which these Aryas were brought to *abstract*, from the concepts of fire, sun, or sky, the general concept of *Deva*hood. But though we cannot help ourselves translating *deva* by *god*, you will easily understand what a difference there is from *Deva*hood to *God*hood. A *deva* is as yet no more than a bright agent, then a kind agent, then a powerful agent, a more than human agent, a super-human agent; and then, only by another step, by what may be called a step in the dark, a divine agent.

We must not suppose that the evolution of the word *deva* was the only evolution which gave us in the end the idea of divine. That idea was evolved in many different ways, but nowhere can we watch every stage in the evolution so well as in the history of the word *deva*. Our own word *God* must have passed through a similar evolution, provided it be an old word. But, unfortunately, nearly all its antecedents are lost, and its etymology is quite unknown.

Some people maintain that the idea of God is inherent in the human mind, that it is an innate idea, or a "precept," as it has lately been called. Others assert that it could have come to men by a special revelation only. Others, again, maintain that it is a mere hallucination that took possession of one man, and was then disseminated through well-known channels over the whole world. We do not want any of these guesses. We have a guide that does not leave us in the dark when we are searching for the first germs of the idea of God. Guided by language we can see as clearly as possible how, in the case of *deva*, the idea of God grew out of the idea of Light, of act-

ive light, of an awakening, shining, illuminating, and warming light. We are apt to despise the decayed seed when the majestic oak stands before our eyes, and it may cause a certain dismay in the hearts of some philosophers that the voice of God should first have spoken to man from out the fire. Still as there is no break between *deus*, bright, as applied to *Agni*, the fire, and many other powers of nature, and the *Deus Optimus Maximus* of the Romans, nay, as the god whom the Greeks ignorantly worshipped was the same God whom St. Paul declared unto them, we must learn the lesson—and a most valuable lesson it will turn out to be—that the idea of God is the result of an unbroken historical evolution, call it a development, an unveiling, or a purification, and *not* of a sudden revelation.

Is it for us to find fault with the manner in which the divine revealed itself, first to the eyes and then to the mind of men? And is the revelation in nature really so contemptible a thing that we can afford to despise it, or at the utmost treat it as good enough for the heathen world? Our eyes must have grown very dim, our mind very dull, if we can no longer perceive how the heavens declare the glory of God.

We have now named and classified the whole of nature, and nothing seems able any longer to surprise, to terrify, to overwhelm us. But if the mind of man had to be roused for the first time, and to be lifted up to the conception of something beyond itself, what language could have been more powerful than that which spoke in mountains and torrents, in clouds and thunder-storms, in skies and dawns, in sun and moon, in day and night, in life and death? Is there no voice, no meaning, is there no revelation in all this? Was it possible to contemplate the movements of the heavenly bodies, the regular return of day and night, of spring and winter, of birth and death without the deepest emotion? Of course, people may say now, We know all this, we can account for it all, and philosophy has taught us, *Nil admirari*, to admire nothing. If that is so, then it may be that the time has come for a more than natural revelation. But in the early days of the world, the world was too full of wonders to require any other miracles—the whole world was a revelation, there was no need for any special disclosure. At that time the heavens, the waters, the sun and moon, the stars of heaven, the showers and dew, the winds of God, fire and heat, winter and summer, ice and snow, nights and days, lightnings and clouds, the earth, the mountains and hills, the green things upon the earth, the wells, and seas, and floods—all blessed the Lord, praised him, and magnified him forever. Can we imagine a more powerful revelation? Is it for us to say that for the children of men to join in praising and magnifying

Him who revealed Himself in His own way in all the magnificence, the wisdom, and order of nature, is mere paganism, polytheism, pantheism, and abominable idolatry? I have heard many blasphemies, none greater than this.

It has been argued again and again that Natural Religion is impossible, that the human mind, with nothing but Nature for its guide and teacher, cannot arrive at the idea of God. That idea—it is held even now by the most eminent divines—must be considered either as innate, or as communicated by a special revelation. Instead of attempting to controvert these two prevalent theories—for, it is clear, that they can be no more than theories—the historical school appeals to facts. I wish to show that in the ancient records of religion we still possess evidence, however fragmentary, that the human mind was able by its own inherent powers to ascend from nature to nature's God, and, in the end, to the God of nature. If we can prove this the final issue cannot be doubtful, for even in theological discussions facts are still stronger than theories.

In answer to those who have recourse to what they call innate faculties, or special revelation, we appeal to the facts, preserved in the Veda, if nowhere else, which show how in India, at all events, the evolution of the concept of God is a matter of history, and can be watched by us, step by step, from the first naming of an agent behind the fire, to the highest expression of a God above all gods, a creator, a ruler of the world, a judge, and yet a compassionate father. When so much is at stake, you will understand that we must be extremely careful not to leave any position in our onward march exposed to attack. We have many and powerful enemies. For some reason or other our opponents claim for their own theories the character of orthodoxy, while they try to prejudge the whole question by stigmatizing our own argument as heterodox. Now, I should like to ask our opponents first of all, by what authority such metaphysical theories as that of innate ideas can possibly claim the name of orthodox, or where they can point to chapter and verse in support of what they call either a special or a universal primeval revelation, imparting to human beings the first concept and name of God. I must say that to a student of the religions of the world in their immense variety and their constant divisions, the names of orthodox and heterodox, so freely used at all times and on all sides, have lost much both of their charm and their terror. One learns to appreciate, not what for the time being was called orthodox by Popes and Councils, but what each honest man in his heart of hearts believed to be true, and, if necessary, asserted to be true in the face of Popes and Councils. Anyhow, with all proper respect for

theories, or confessions, or articles of faith, one learns reverence for facts, and it is this true reverence for facts which makes accuracy and fullness of statement almost a sacred duty to the student of the history of religion.

It has been shown how the Dawn coming, no one knew whence, and opening every morning the everlasting gates of the East, called forth in the minds of the Vedic poets the first vague intimation of an infinite, of a world beyond this world, nay, of an immortal life. Under the name of *Aditi*, the un-bounded, she is implored by many poets, by none more touchingly than by him who expresses a hope that in that distant dawn 'he may see again his father and his mother.' The storm-wind also, and the hero of the thunder-storm, Indra, have been shown to contain the same theogonic seeds which in the poetry of the ancient world developed slowly, but safely, into the concept of a supreme god, the ruler of the world, to be feared, to be believed in, to be worshipped by men. But all these cases—those of Jupiter, Ouranos, etc.—have been so often and so fully discussed by others and by myself, that I preferred to unroll before your eyes a new picture, showing the history of the Fire from its simple beginnings of the burning on the hearth to its final apotheosis as the god of light, as an all-powerful, all-wise, yet compassionate, god. This one evolution will have to serve as a specimen and illustration of all other evolutions in Physical Religion. They all land us in the end at what I call the *henotheistic* stage, the belief in single, but supreme, gods. That stage is often followed by what I call the *polytheistic* stage, in which these single gods are arranged in some kind of order, mostly under the sway of one god more powerful than the rest, till at last, during the *monotheistic* stage the idea of god is seen to exclude the possibility of multiplicity, and the name of God, used in the singular, and in the singular only, assumes a meaning which it never had before.

When the light of *Agni* is spoken of as immortal, that need not mean any more than that it lasts forever, if properly kept up. We read, for instance, "See this light immortal among mortals." (Rig-Veda VI., 9, 4). This need not mean as yet more than this never-dying light. But the fire, as a masculine, or rather as an agent, was likewise called *amartya*, not dying, or immortal, and the Vedic poets dwelt again and again on the contrast between the immortal *Agni* and his mortal friends. Of other Devas also it was said that they were not, like human beings, subject to decay and death. But while the ancient poets brought themselves to think of an impassable gulf between the mortals on one side, and the immortals on the other, this gulf vanished again in the case of *Agni*. He, immortal as he was, dwelt among men. He was the

guest of men, often called the immortal among mortals.

Now this expression, 'immortal among mortals,' seems at first sight of no great consequence. But like many of these ancient phrases, it contains germs waiting for a most important development in the future. We may recognize in that simple expression of an immortal dwelling among mortals, being the guest, the friend, the benefactor of mortals, the first attempt of bridging over the gulf which human language and human thought had themselves created between the mortal and the immortal, between the visible and the invisible, between the finite and the infinite.

Such ideas appear at first sight in a very simple and almost unconscious form, they present themselves without being looked for, but they remain fixed in the mind, they gain from year to year in strength and depth, and they form at last a fertile soil from which, in later ages, may spring the most sublime conceptions of the unity between the mortal and the immortal, between the visible and the invisible, between the finite and the infinite.

There is a continuity in all our thoughts, and there is nothing more important for a true appreciation of our intellectual organization than the discovery of the coarse threads that form the woof of our most abstract thoughts.

THE ORIGIN OF LANGUAGE.*

BY LUDWIG NOIRE.

II.

I ASSUME that antecedent to the rise of language, social life held men together in herds or tribes. War, at that time, was the universal natural state; war against animals of other species, as well as against neighboring tribes of the same species. It is not improbable that a peculiar sound or call united the members of each single tribe, so that by setting up their cry they could call together those who were distant, dispersed, or had lost their way, or could mutually encourage one another when engaged in battle with a neighboring tribe. Let us suppose now that once a member of one tribe warned his companions of the approach of another tribe, by imitating the call or cry of the latter; we would have here the origin of the first human word, for this would be an instance where consciously and intentionally an idea had been excited in the minds of like and kindred creatures.

We have thus, in the most natural manner, conducted into the province of the human word that which we found in the animal state—namely, the call of allurements, the war-cry, and the call of warning.

Geiger truly observes that "the thing of greatest interest to man has ever been man," and seeks, accord-

* Translated by *učyl* from Noire's *Die Welt als Entwicklung des Geistes*. (Leipzig, Veit & Co.)

ingly, for the oldest designation of language in the expression of human acts. But I should be greatly surprised if *man as an entirety* was not earlier obvious and noticeable than his single acts, than even his most expressive pantomime or gesture. This latter is always an abstraction, and it seems to me that, not its immediate perceptive knowledge of course, but its being comprehended and designated by a *word*, must have involved an enormous antecedent development. *Man entire*, on the other hand, is a perfectly concrete, known, and ever recurring *fact*. Look at the animal world. Animals, aside from that which interests and affects their sensual life, wherein they are guided by instinct, first of all acquire intelligent knowledge regarding individuals of their own species, their friends and their foes, other animals and men. The marmot knows his enemies, attacks the dog, assails man and tries to disable him. The dog knows his master: the dog of Ulysses recognized his master when no one else knew him.

* * *

I now ask the reader to accompany me in the following course of observation.

In addition to the instincts of nutrition, movement, and the like, which find their immediate expression through the life of the senses, there are further present in young animals and men, born in them, certain *obscure ideas or percepts*, and among these ideas is found, because it is the most natural of all, the idea or percept of beings that are exactly like themselves. Just as the bird builds its nest, so does the infant know its mother, who from the beginning constitutes its *entire world*. It conceives, at the very outset, the entire external world as *constituted like itself* (WILL OVER AGAINST WILL).*

The child cries, it gets angry, it has desires, it is amiable. Its most natural perceptual idea, therefore, is that of a being like itself, the representation of a distinct personality, which since it appears to it as a mother administering nutrition, love, and care, is indeed the most important and the most interesting of all things about it. The first word that a child learns is that which denotes its mother; that word

bursts forth from its emotional life, from the impulse of its will, and is accompanied by an actual represented image.

Are we not, accordingly, justified in the inference, that the *primum cognitum* was also the *primum appellatum*? That is, that the most natural, the most intelligible, and the most interesting percept first and before all gave birth to the first word?

Among philosophers who have given their attention to this subject, this view has been both rejected (Leibnitz) and accepted (Condillac, Locke, Adam Smith). Some maintain that the earliest words were proper names; others, that they were nouns appellative. Max Müller decides the question in this way. He assumes three stages: the first is where the object is designated after some quality or attribute (*cavea*, cave, from Sanskrit root *ku*, to hide), where, accordingly, a general idea is applied to a particular object and becomes its proper name, just as in the case in which a man first received the name of *Great Head*; secondly, that this proper name is thereupon transferred to all or to many things like it; and, thirdly, that these names are thereby raised to the rank of appellatives or names of a genus.

This solution suffers from the drawback that it is not a solution. When Max Müller says, "The first thing really known is the general," we are entitled to ask, How came man by the knowledge and the designation of this 'general'? To be sure, at a time when men were already in the possession of a couple of hundred words by which they designated acts, qualities, and characteristics, they may very naturally have applied such roots to the characterization of things—called their river, for example, *Ach* (water) or *Rhine* (the flowing), their sea *Saïus* (the agitated), their lake *Meer* (originally: a soft, marshy mass). A name of this kind might then continue a proper name, or become an appellative. Even at the present day we may understand *sea* both as proper name and general concept, specialized by adjectives: as "the White Sea," "the Black Sea." Permutations of this kind have taken place at all times, and are being continually employed up to the present day. The "Red one" the "Black one" in this sense become proper names; Tartuffe and Eulenspiegel in French are names appellative. The magnet (derived from the city of Magnesia) has given the designation of "magnetic" to one of the most generally diffused forces, qualities—that is attributes—of things.

Of this problem I myself shall now attempt a solution, and, as I trust, with somewhat better success. By two examples I shall briefly illustrate the subject as conceived by the eminent men referred to: Adam Smith, Condillac, and Locke say: A child calls every man *papa*, every young man *uncle* or *Char-*

*As a characteristic instance let me quote the following passage from Weitzel's Autobiography. This man, the son of a turbulent period,—that preceding the French Revolution,—describes his youthful impressions, in which, only as a boy six years old, he indignantly vents his rage against the existing social injustices, bewails his own sufferings and his mother's wretchedness. He says: "In this frame of mind many a time I went out into the open air, and shook my clenched fists at the heavens, uttering imprecations and curses. 'May God be punished for this!' I exclaimed, 'may the Holy Mother of God be punished for this!' Under the impression that the abused divinities were incensed at my conduct, I challenged them to destroy me by a blast of lightning: 'Do me some harm,' I frantically exclaimed, 'kill me if you dare!'—This naive anthropomorphism brings back to my mind the touching reply of Lafontaine's old maid servant to the harsh words of the ecclesiastical zealot, who had embittered the last days of the poet's life by sanctimonious austerities, but who still expressed his apprehension that the departed one might after all have gone to hell: "Dieu n'aura jamais le courage de le damner!"

ley, or something similar; hence proper names were the original ones.

Leibnitz says: Children call every person *man*, and use most frequently such words as *thing*, *plant*, *animal*; hence general terms were the original words.

But how easily this contradiction is dissipated when we take into consideration the fact that from the start there is presented to the child, on the one hand, only a limited number of words, and on the other, an equally limited number of sensory perceptions. Both these classes, now, are mixed up with one another; that is, with some *one* certain word the child associates a number of similar sensory percepts, which it confounds and interchanges, because as yet it does not know their differences. And the words which the child most frequently hears from its parents are *either* very special in character, denoting beings that it meets oftenest, as *papa*, *uncle*, and the like, *or* words of a very general significance; which stands to reason, since one cannot at once teach a child words like "forget-me-not," "rhinoceros," "shoe-maker," and so forth. Naturally, therefore, the child arranges all the facts of its experience under the head of words like those above cited, and since it soon learns to distinguish "*papa*" and "*uncle*" from all other beings, the general terms at the second stage of its development alone remain to it. But no inference can properly be drawn from facts of this kind, because we are not concerned here with words invented by the child itself, but with others that have been communicated to it from a higher stage of culture. The child's activity is at first one of generalization; that is, of connecting phenomena that repeatedly occur, with some one word that stands at its disposal. Only later does it learn to classify and subdivide correctly, as when it hears that "the Rhine is a river," "the Hudson is a river," "the Mississippi is a river."

From observations of this sort but one thing can inferentially be established. Namely, this: that language at its origin designated by its first words those objects that were the most striking and the most interesting to man, and proceeded then, by the help of these words, to generalize—that is, to attach similar things to some single word. The marked importance of some object which constantly occurred in some particular isolated form, naturally must have led to the attribution of some particular name to that object, and proper names, accordingly, very probably belong to the oldest words of humanity.

The science of language has proved that the roots from which the words of to-day have risen, originally denoted definite acts. But considering the endless flux of the meanings of words and of the contents of concepts it is very difficult to assert that those mean-

ings—which are the furthestmost limits that science by retrogressive inference has reached—were their original primitive meanings; in other words, that the root *da* at its origin meant to bind, *gd* to go, *mar* to grind. Even Geiger's ingenious hypothesis, that the first word originated from the imitation of a facial gesture accompanied by the simultaneous utterance of sound, is somewhat forced; for here we miss the element of *communication*, which even in the animal world was considerably developed, and from which, doubtless, also human speech sprang.

The single and individual acts of man, as we have remarked, are also abstractions, the representation and connection of which by means of the word cannot be put at the beginning, for the cogent reason that in infant development we observe that the child fixes by words only that which is *personal* and thus of frequent recurrence, whereas flitting and transient acts and gestures only affect its sensory life, make the child cry or laugh, but do not produce calm reflection. We are much inclined, therefore, to assign such roots as "biting," "grinning," "rubbing," "smearing," and so forth, to the *second stage* of the evolution of language. . . . We cannot regard them as the original starting-point of language.

On the contrary, for reasons that have been partly alleged, we should rather assume that the names of individual men, the names by which they were called, and proper names were the earliest words. This, moreover, explains a problem that has long occupied the attention of the most eminent thinkers; namely, how man, amid the universal flight of phenomena and the concourse of the things of the external world, was able to fix and retain the particular, and, at once by the aid of the word, to raise it to the *general concept*. This is a faculty so genuinely and purely human; one which we must endeavor to bring home to ourselves as distinctly as possible. We listen to the human words so naturally imitated by the parrot, or to a dog that barks at us and manifestly tries to tell us something in his own language; and all this affords us great satisfaction, for we perceive in it, distinctly drawn, the line of demarcation between man and beast. But to hear an animal *consciously* utter even a *single* human word, would fill us with dismay.

* * *

As we have stated, the creation of language, the greatest miracle of which consists in the phenomenon that amid the universal dissolution and flux of intuitions it isolates by the phonetic word a single percept, and by degrees condenses that percept into a mental image, as something subsisting by itself,—this creation of language can only owe its existence to some natural and immediate contingency. It must originally have operated with regard to objects whose duration

stability, and isolation from other natural phenomena had been discovered and established beyond the shadow of a doubt; whose mental representation, as well by means of inner capacity of comprehension (innate representative power of things like us) as by the constant recurrence of the real object itself, became so clear, so fixed, and unequivocal, that it could be said that like Pallas the representation of this object sprang with the word from the head of man in full and complete panoply! But this object must have been our companion and homologue MAN, and hence the names by which men were called, their appellations, were the first words.*

But are we able to conceive of a way in which these proper names have become actual general names, and general concepts thus begun their silent yet continuous operations? I do not believe that this can prove so difficult a task. It would suffice that a number of such sounds be given, and that the images of the individuals thus denoted be constantly called to mind by the utterance of the sound; in such a case, in time, some peculiar feature of some one of these objects might at the utterance of the word gradually become excited in the mind of the hearer and become attached to the word itself. I intentionally leave this exposition in its present vague and general form, because a person cannot be too cautious in speaking of that primeval time of transition from animality to humanity, and because every advanced step must be made with the utmost circumspection. I merely recall to mind, that in the case even of people of the present day, baptismal names are during early childhood usually not employed as appellations or names by which children are called, but that some name is *invented*, suggestive of some striking peculiarity of the child, or often in imitation of some favorite sound uttered by the child itself. We might, accordingly, merely reverse the process we are considering, by supposing in a given individual the presence of some peculiar movement of the mouth with a showing of the teeth, and to fancy this peculiarity also present in another person, and finally, to imagine that the name of the former (phonetically, perhaps, connected with the peculiarity in question) be transferred to the latter individual. In

an hypothesis of this kind we should have the first beginning of the formation of the concept. What a feeble beginning! the reader will exclaim. But let him bear in mind, how faint, upon the whole, are all beginnings in the organic world. It is an unquestionable result of modern linguistic research, that the names of most animals are derived from *colors*. The variety and heterogeneity of colors were circumstances that very early interested man. Hence may it not be legitimate to infer that the appellation of some certain man who was distinguished by a certain color and thus necessarily brought to mind that color, was in the lapse of time conferred upon others who were conspicuous by reason of the same characteristic, and that by degrees it was transferred to animals, and finally became a generic name?

(TO BE CONTINUED.)

CEREBELLUM AND PONS.

THE Small Brain (or *Cerebellum*) together with the Bridge (*Pons Varolii*) encircles the medulla oblongata like a thick ring, being thickest at the posterior part.



CEREBELLUM. DORSAL VIEW. (After Sappey.)

1. Bottom of Fourth Ventricle, the root of which is formed by the cerebellum.

2. Striae acusticae, the roots of the auditory nerve.

3. Left lower Peduncle, rising from the medulla, and overlapping in its further progress the upper peduncle, as seen on the right side.

4. Clavae funiculii gracilis, the Clavae; the swellings of the clavae are caused through nuclei imbedded in their fibres.

5. Upper Peduncles, connecting the cerebellum through the red nucleus with the posterior hill, the thalamus, and most likely also with the hemispheres.

6. Lagenae or fillet, a tract of nervous fibres, originating on the dorsal side below the Four Hills. It passes slantingly to a lower part of the ventral side. The fillet consists of fibres from the auditory nerve, the trigeminal and the spinal cord, the latter part being motory. The others connect the activity of their respective nerves with the thalamic region.

7. Brachia ad pontem, the thickest among the three pairs of bands which pass into the cerebellum. It connects the Small Brain with the Bridge.

The dotted line at the top represents the corpora quadrigemina or Four Hills.

The left and middle part of the cerebellum is cut off. The gray and white substance in the interior of the cerebellum is so arranged as to produce the figure of a tree, called *arbor vitae*, the tree of life.

*I recently read an observation by Spielhagen in the *Gegenwart*, which harmonizes clearly with my view: "The uninterrupted, rushing stream of impressions will change a d wider the old channel that the impressions of youth have dug in our thought and sensation, and will obliterate the images that apparently no longer possess any meaning or interest for us. I say apparently, for, in reality, such is not the case. Even those who have traveled farthest, those who have been most buffeted about by fate, even those who have risen to the highest pinnacle of fortune, despite their broad range of vision and exalted station, will constantly surprise themselves in the act of unconsciously comparing their present great world with the limited one of their childhood and youth, and that they will always class new men and people under the head of a few categories, based upon a limited number of prototypes, which they regard as normal—the few men, namely, who have decisively influenced their early lives, or at least have witnessed with interest the evolution of their youthful years."

The Pons overarches, bridge-like (hence its name), the medulla in front. It receives in the nuclei of gray substance embedded in its fibres, many nerves from the pyramidal tracts and thus forms an intermediate station between the cerebrum and the lower motory mechanism.

Some of the nerves that originate here stand in relation to the Pons. Thus, the fifth nerve (*trigeminus*) breaks with its motory as well as sensory fibres through the Pons; and a disease in either arch of the Pons always affects to a greater or less extent the sensibility and motility of the opposite part of the body.

Between the two lobes of the Cerebellum there is a narrow central portion which, because of its worm-like appearance, is called *vermis* or worm. The upper worm culminates in the *monticulus* (mountain), the lower worm in the *uvula* (or grape).

The names of the different parts of the Small Brain may be studied in the adjoining diagrams.

The functions of the different parts of the Cerebellum are little explored. We know however that irritations produce vertigo and rolling motions. Animals in which the Cerebellum is injured, show an uncertainty in their movements similar to that observable in a drunkard. The adjoining pictures (reproduced from the Encyclopedia Britannica) show two pigeons;



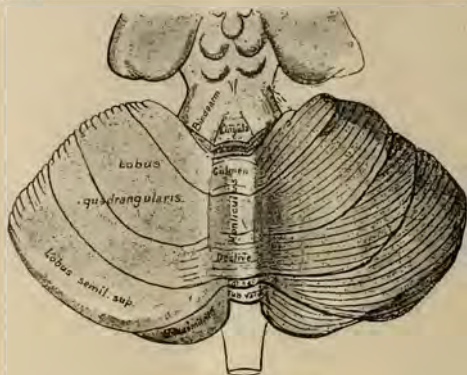
PIGEON WHOSE CEREBELLUM IS REMOVED.



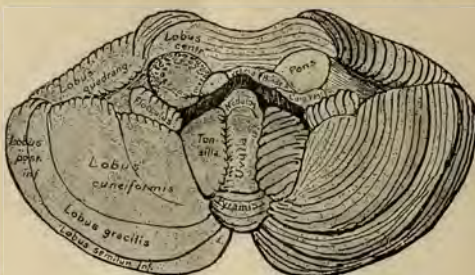
PIGEON WHOSE HEMISPHERES ARE REMOVED.

from the one the Small Brain and from the other the Hemispheres have been removed. The former shows all signs of intelligence: its motor apparatus are in all their details uninjured; yet the power of properly co-ordinating the various motions is entirely gone. Thus the pigeon lies helplessly sprawled on the ground. The other pigeon stands firmly on its feet; it flies if thrown into the air; it walks steadily if through some irritation it is made to move; in a word the power of co-ordinating the most complex motions is preserved.

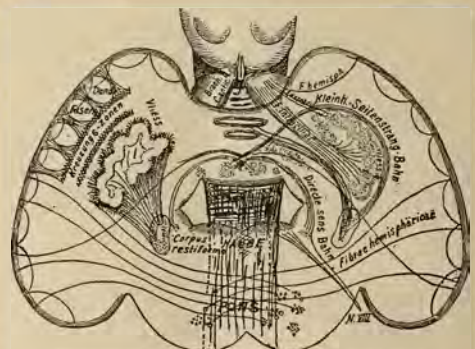
Yet all movements are executed apparently without consciousness and without the faintest sign of intelligence.



CEREBELLUM. Superficial view from the dorsal side. (Edinger.)



CEREBELLUM. Superficial view from the ventral side. (Edinger.)



DIAGRAMMATIC SECTION THROUGH BRIDGE AND SMALL BRAIN. (Reproduced from Edinger.)

It represents the most important results obtained by Benedict Stilling with regard to the paths of the various fibres in the cerebellum. The medulla has been severed and pulled out of place in order to show the Bridge and Small Brain at once. Thus the upper peduncles (*brachia cerebelli anteriora*) appear in the wrong place. They must be conceived as belonging much lower. They enter the cerebellum at the hole in the middle. (Compare for a correction of this displacement the other drawings of the cerebellum.) Little additional knowledge upon this subject has been gained since Stilling.



PONS AND ITS RELATIONS.

The Roman numbers indicate the nerves in their order.

The fifth nerve (*trigeminal*) divides in the Gasserian ganglion (marked x) into three sensory branches:

1. The ophthalmic branch;

2. The supra-maxillary branch;

3. The infra-maxillary branch;

Vm, Motor branch of the fifth nerve.

C, Lobes of the cerebrum. Hemispheric region.

The gray layer between the roots into which the first (olfactory) nerve divides is called *substantia perforata* (marked x x).

Th, Thalamus opticus.

A, Hypophysis. Here the optic nerve decussates. Its decussation is called *chiasma*, having the shape of a Greek Chi, χ .

a, Corpora candicantia or mammillaria.

i, Corpus geniculatum interius.

e, Corpus geniculatum exterius, being the ganglionic of the second, or optic nerve. The optic nerve divides into two parts, the exterior stands in close connection through the corpus geniculatum exterius with the thalamus and passes into the anterior Hill of the corpora quadrigemina. The interior passes into the posterior Hill.

t c, Taber cloereum.

P, Peduncles of the brain or crura cerebri.

P V, Pons Varolii.

pa, Anterior pyramid of medulla. The decussation of the pyramidal tracts below the pyramids is plainly visible.

a, Olivary body.

C N, First cervical nerve.

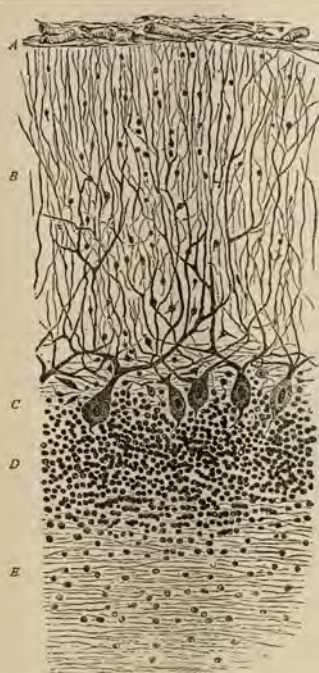
i, Lateral column of spinal cord.

c a, Anterior column.

C e, Lobus lunatus anterior of cerebellum.

C e', Digastric lobe of cerebellum.

f, Flocculus or tuft, a small lobe of cerebellum.



GRAY MATTER OF CEREBELLUM, MAGNIFIED ABOUT 100 TIMES. (Sharpey, after Sankey.)
A, Pia mater of cerebellum, the enveloping membrane. B, Outer gray layer. C, Great ganglionic cells. D, Inner grayish-red, or so-called granule layer. E, White fibres.
The great ganglionic cells send out large branching processes into the outer gray layer, becoming finer the nearer they approach the surface. The bifurcate ramifications together with a kind of connective tissue substance form a most delicate matrix of fibres, among which a number of small corpuscles are interspersed. The connection of the ganglion-cells with the inner grayish-red or granule layer consists of very fine fibres which are soon lost to view among the densely grouped granules.
A few scattered granules are found also in the white substance.

CORRESPONDENCE.

LOOKING UPWARD.

To the Editor of The Open Court:—

IN *The Open Court* of the 20th ult. there appeared a very lucid, strong article to a great extent in annihilation of Mr. Bellamy's social dream. As a well constructed fortalice of conservatism it was doubtless widely admired, and its sharp-cut lines must have assured many of its inherent strength. Beauty of form is always attractive, and when combined with good material is often taken as a guarantee of intrinsic worth.

But new buildings, however externally fair, must before occupancy be tested. "It is truth only," justly declares the article referred to, "that can make us free." What avails height of intellectuality, breadth of purpose, and beauty of execution, if the foundations be unsound?

"There comes a dreamer who flatly proposes to abolish the law of gravitation." This assertion regarding Mr. Bellamy's purpose constitutes the key of the whole article, and, if it be true, then were Mr. Bellamy indeed an idle dreamer. But it is not true. Illustrations, symbols, form perhaps the most convincing of all arguments, but they must have more than a mere specious resemblance to their prototypes in order to abide.

In other words, competition, which it is true Mr. Bellamy wishes to see abolished in its cruder form, is here taken to have an exact parallel in gravitation! In what way can "the force which aggregates masses and resists the separation of masses," or gravitation, be compared with competition, which is defined as "a common strife for the same object"? Gravitation is an aggregating force, competition is a separating force. To use Grant Allen's

terminology: the first is a force, the second an energy. Competition cannot for a moment be compared with gravitation, except in so far as both are laws of nature.

Thus, in trying to do away with competition, Mr. Bellamy does *not* propose to abolish gravitation, and the arguments founded on this rash illustration fall to the ground. But neither does he seek to "abolish" competition as an energy or as any law of nature, which is probably what was meant by the illustration. Very sacred to science is that basic struggle for existence in which competitive energy is the chief factor, but Mr. Bellamy would not disturb the sanctity of the principle; he would only carry its process—its mode of action—a little further.

The Open Court has always been an ardent champion of scientific progress. No later than No. 135 an admirable article on "Nature and Nurture" contained a complete vindication of Mr. Bellamy's theory. Yes: competition is, indeed, the method of nature, but nature transforms competition into co-operation. The two methods are not, evolutionally, opposed—but sequent. When competition by nature has done its work in evolution, then its energy is commuted by nurture, and becomes known as co-operation.

That this is so will be granted from everyday experience. The large "trusts" of the hour, the public school and kindergarten systems, the concentration of wealth in the form of syndicates, of labor in the form of unions, and so forth, are all so many proofs of the irresistible tendency of developed competition to co-operate. Energy is a constant quantity. The scientist's "struggle for life" goes on, but gradually, the meaning of "life" expands. From mere "material existence" it becomes "soul-existence" through the medium of "mind-existence." The article, which, has called out this rejoinder, well remarks: "The people perish from want of knowledge." But how can they acquire knowledge absorbed in the slavery of material acquisition? Without prejudice to the more sublime fruits of the "mind-existence" and "soul-existence," Mr. Bellamy would seem to be both scientific and logical in first endeavoring to ameliorate the present "physical existence" or brute struggle for life.

"Mr. Bellamy depicts a state of society where there is no competition." No competition! It is a hard saying. But again an illustration may help us. Consider the case of a man who has worked hard and successfully for a competence. He has brought all his competing forces under control—organized them to co-operate—to this end, and at fifty retires from business. Supposing him not to have become developed "one-sidedly" he now begins to enjoy life. All material cares for the future have vanished, but does he stagnate and die, i. e., is existence impossible now the material struggle is past? Luckily we have many examples to the contrary. The physical nature relieved, the man's force is now directed toward the further development of his intellectual and moral nature. He pursues knowledge and wisdom unfettered, and the race is proportionately benefited by the amount and quality of that emancipated and concentrated force. Millionairism only compiles material for executive wisdom, which will be content with a simple competence as "the wages of going on" with its work for humanity.

But the writer of the paper "Looking Forward" is really, if he knew it, on the same side with Mr. Bellamy. He says: "Give the poorest a chance to acquire as good an education as the richest commands." How can he get a chance when his barriers are material wealth? Thanks to partial co-operation the poorest can now acquire a common school-education, but can he go to college, can he mix with cultivated society, travel, study? No, he must work for material subsistence; any leisure goes to recuperate force expended in that direction. Yet when some future day announces that sufficient material has been extorted for "mere life," then a sufficient proportion of intelligence will have become developed to remove this common barrier of progress.

To sum up: It would rather seem that competition corresponds scientifically to natural selection, but natural selection becomes in time nurtured selection. The parallel of nurtured selection is co-operation.

One last word as to Mr. Bellamy's social scheme. Nationalism's rôle would appear to be the wide introduction of the principle of co-operation; but the first work of co-operation will doubtless be the establishment of a thorough scientific, liberal education for one and all. Thus will the value of that at present unknown instrument, leisure, be appreciated—utilized for progress—instead of being wasted or misused. Only the truly educated can properly use leisure which is the first fruit of co-operation. L. D. A.

PRODUCTION LIMITED BY COMPETITION.

To the Editor of *The Open Court*:—

DEAR SIR: Your article entitled "Looking Forward," which by the way is of the same name as a pamphlet of mine, is positively marked in the number sent me March 20th, I presume to attract my attention, as the article is in direct antagonism to my views on Social problems. I take the pencil mark in the spirit that a bull does when a red flag is flaunted before his eyes. Because I am under the impression that it was intended that I should. I presume that one of the main points on which we differ is this: You are under the impression that life must be a battle, in which the race is improved by the survival of the fittest. The fittest, of course, at present, is the one best adapted to succeed in the competitive struggle. The meaner the man engaged in production the cheaper he can put goods on the market. Such a man will hire women and children instead of men, will invent fines to rob them, use shoddy and evade liabilities, and put goods on the market cheaper than an upright honest man who did not grind the face of his employees. We all know that following the golden rule in the competitive system would lead you directly to the poor house. I claim that the kind spirit of emulation substituted for wolfish competition would make the nobleman (instead of the villain) the fittest to survive. But when you come to realize the tremendous productive power that inventions have given to humanity and know for a certainty that all might have the necessities and luxuries of life with no more labor than is healthful exercise (if the dead-lock on production was removed and all were to assume their share of the burden of society), then we become convinced that life need not be a battle, and the race would be no better if it were developed as high in that direction as a bull-dog. *The Open Court* says, "let us be fair to our enemies." There is no need for having industrial enemies. Also "let us adapt ourselves to nature, let us break down artificial barriers between man and man." I am so sorry that he does not undertake to say what the artificial barriers are. We socialists do, we say, private ownership in land, and competitive system; we say that the machinery of production must belong to society, because there are hundreds of factories shut down, and hundreds of thousands of idle men anxious to run the machinery in those factories to produce the wealth they need. But Private Enterprise says: you must not produce the things the people need, because they have not any money with which to buy them, and it will cause an overproduction. For at present production is limited not to needs of the people but to their purchasing power, and as long as they are kept idle and receive no wages they will not have purchasing power. And this is the short-sighted imbecility that is the cause of undeserved and unnecessary destitution right in the midst of a possible deluge of abundance; for it can be demonstrated that we have the power and the will to produce a great many times more of the things we need than we can consume, and as long as production is limited to the purchasing power, more men will be thrown into idleness, and the purchasing power diminished, until destitution is the lot of all who are not drawing rent and interest.

The temperate and industrious man who cannot find employment is in an awful position. So-called civilization is his desperate enemy, it has placed him at a far greater disadvantage than the savage in the wildwood. The savage is not dependent on his fellow-man for the privilege to live, for the land and all nature's bounties are free and open to him, and stand securely between him and starvation. Whereas the so-called civilized man finds the land all pre-empted, and is robbed of these opportunities, and has nothing between him and starvation but cold humiliating charity or suicide. There are thousands of willing workers traveling the streets for thousands of miles pleading for the privilege to toil. When their clothes are good they get refused, when they are worn out they get refused and abused. If hunger compels them to steal, they are not the enemies of society. But society is their desperate enemy.

C. ORCHARDSON.

CO-OPERATION AND COMPETITION.

[IN REPLY TO THE TWO FOREGOING LETTERS.]

BY THE AUTHOR OF "LOOKING FORWARD."

A CLERGYMAN who preaches in any one of our dogmatic churches is responsible to his superiors, to the Council, the Synod, or perhaps to a Bishop; but no one of his audience would be allowed to rise after he had spoken and criticize his sermon. How different it is with the religion of science! As a preacher of the religion of science I have no superior, there is no bishop above me, no council, no synod; but every one of my audience has the right to ask, "Is it the truth which thou propoundest, and are the commands which thou teachest founded in the nature of things?"

In conformity with this right a few among my audience have risen and have sent in their protests against my doctrines. I am arraigned for having taught wrong ideas that will lead astray, and here I am to defend myself; and if it be found that I am wrong, I shall abandon my case and join him who teaches the truth.

The letters of both my accusers are different in character, and they present their arguments differently. They cannot be disposed of with the same answer. So let me treat their objections separately.

Mr. L. D. A. is a man of lofty aspirations. He has a warm heart and fights like a brave soldier for the ideals of humanity. Yet he does not understand why competition can be compared to the law of gravitation. He says:

"Gravitation is an aggregating force and competition is a separating force. To use Grant Allen's terminology: the first is a force, the second an energy."

Mr. L. D. A. should have left Grant Allen's theory out of our discussion. By chance I happen to know Grant Allen's theory, which is one of the most ingenious devices I have ever met with—it has only one fault and that is, it does not agree with facts. Mr. Allen confesses in a prefatory "Apology" that he had sent his book "Force and Energy," before it appeared in print, to several specialists. He continues:

"Not many of the specialists, I fear, looked at my lucubrations: those who did returned me one or other of two apparently contradictory criticisms. Some of them said my theory was only just what was already known, and universally acknowledged. Others of them said it was diametrically opposed to what was already known, and betrayed an elementary ignorance of the entire matter. To the ignorance thus imputed I will candidly plead guilty."

Gravitation, I am told by L. D. A., is an aggregative force and competition is a separative force. This is not correct. The very name competition means "a striving together." Is it not competition that builds our great cities? and in the cities is it not again competition that crowds the competitors together in especially favored quarters? Mr. L. D. A. defines competition as "a common strife for the same object." Very well! Is that not an aggregative force just as much as gravitation? Every gravitating

particle upon the earth gravitates towards the very same point in the centre of our globe. This, however, is only part of the comparison. The most important resemblance is that both are natural laws which can never be abolished and if they could be abolished, they would throw the whole world into chaos. Gravitation shaped our earth and competition produced our civilization.

I do not intend to be one-sided; so I will confess right here, that competition alone is nothing without its twin brother co-operation. Both have grown simultaneously and we may fairly expect that in future times also they will increase and decrease with one another. In a state of society where there is little co-operation, there is little competition. Competition grows in intensity with co-operation, and supposing we lived in Mr. Bellamy's state of complete co-operation, competition would be scandalously fierce. Supposing there were in the national carpenters' shop the position of a carpenters' boss vacant, how many do you suppose would compete for the place? Perhaps several thousand, and one only could be appointed.

A friend of mine once held a position in the German government. But he was noted for his liberal views. The German government is such a complete co-operative machine that the competition for advancement is simply frightful; and if it happen that a man trained in a certain branch of governmental service be for some reason discredited with those who run the machine, he must despair of ever getting along, for there is no "free" competition which would allow him to look for an engagement in a similar establishment and still less would he have a chance of making himself independent.

Competition, it is true, forces the price of manufactured articles down to its lowest level, but it keeps us awake and urges us to progress with our times.

I remember that on a visit to a friend of mine who was employed in a large chemical manufactory, a great excitement arose because a rival establishment had thrown goods on the market for eight dollars which had cost one hundred and two dollars before. There was no doubt that a new and important invention had been made to manufacture the very same article that much cheaper. There was but one alternative, either to make the same or perhaps a similar invention, or to give up that branch of manufacturing for good. I was later on informed that they had succeeded in their work, and humanity was benefited thereby.

Co-operative manufacturing which has not to look out for rivals does not progress—a fact sufficiently proved by the stationary methods of production in all state monopolies. The manufacture of tobacco in France is carried on in exactly the same way year after year, and the cigars made to-day are in shape and quality exactly the same as they were before. Every smoker of refined taste gladly pays a royalty to get American or German cigars. If we change all the manufactures of a country into state monopolies, if we annihilate competition, we nip progress in the bud, and while business might become—a consequence still to be doubted—as easy-going and as comfortable as a well-endowed monastery of yore, it is certain that the whole country would sink into a state of general stagnation.

Competition is at present the hugbear of social politics. It is depicted as the Moloch that devours our children, and its usual epitheton ornans is "wolfish."

Wolfish competition! How savage that sounds. The word reminds me of a prominent professor whose name was Wolf. He was known as a just but severe examiner, and whenever a student failed it was said that the wolf had eaten him. When Professor Wolf heard of this saying, he said: "Never mind, I eat the sheep only."

I knew a lady who, some years ago, determined to make a living by teaching foreign languages, with which she was well acquainted. Yet she was greatly afraid of competition, and es-

established herself as a teacher in a small town of Western America. There was no competitor within perhaps a hundred miles around, and there were many desirous of studying French and German. But the pay she received was only twenty-five cents a lesson.

Let me adduce another instance of a different character. A professor of Italian came to one of our eastern cities where an old Italian music teacher had monopolized all the Italian, that, as he thought, could possibly be studied. The arrival of the young professor aroused the indignation of the old gentleman, for there was no room for both Abraham and Lot: one of them had to leave. The young professor gave lectures on Dante and Petrarch, and excited so much interest in the language of these poets that the old gentleman became busier than he ever had been before and both teachers could scarcely satisfy the demand.

I learned a lesson from these experiences, and it is this: An able man or woman should not be afraid of competition, for after all wolfish competition like Professor Wolf eats the sheep only.

Let us not be frightened by wolfish competition. It is better and nobler than it appears. For what does it mean else than the right to work and to try one's best among other workers?

I believe in co-operation as much as in competition. Society is so complicated an organism that I can only sustain myself by co-operation. I perform some special work in order to help others, and in my turn I am again helped by them. Yet the co-operation in which I believe, is radically different from Mr. Bellamy's co-operative ideal. The co-operation in which I believe does not exclude free competition; but Mr. Bellamy's co-operation is expressly proposed to suppress, to supersede competition. Annihilate the right of competition, which means that every one may freely exert his abilities and earn the rewards of his industry—abolish the right of competition and you destroy freedom. Let us have more co-operation of any kind, if you please, but may a gracious fate preserve us from the Bellamitic state of a co-operative labor army, where we shall be ordered about like a Prussian Grenadier and where the foundation of our independence will be gone—the liberty of work and the freedom of enterprise. The fate of humanity, whether gracious or not, will indeed preserve us from the realization of a Bellamitic Utopia, for Mr. Bellamy's theory is a beautiful picture, beautiful to the taste of Nationalists; but it has the same little fault as Grant Allen's most ingenious theory: it does not agree with facts.

Mr. L. D. A. says that competition corresponds scientifically to natural selection, but natural selection becomes in turn nurtured selection—"nature is changed into nurture," into an artificial culture, and "the parallel of nurtured selection is co-operation." If natural selection changes into artificial selection, the natural law is by no means altered, nor can competition, if Mr. Bellamy "carries its process—its mode of action—a little farther" be changed into its contrary. Artificial selection is nothing but natural selection guided by a special purpose; it is a selection in which the natural forces can work in one direction much quicker than they would do if not interfered with. Artificial selection is no abolition of natural selection or turning its process into its contrary; it is rather a more concentrated and fiercer kind of selection. In a similar way competition will be more and more concentrated, it will in the further progress of mankind become rather more concentrated than it ever was.

* * *

But now I must prepare for a dangerous attack; Mr. Orchardson says he takes my article "in the spirit that a bull does when a red flag is flaunted before his eyes." The bull raises his horns, and if I am not on my guard he will gore me and trample my body under foot.

Mr. Orchardson speaks about hundreds of factories that are shut down, because private enterprise says: "you must not produce the things the people need, because they have not the money

to buy them, and it will cause an over-production." "At present," Mr. Orchardson says with emphasis, "production is limited not to the needs of the people, but to their purchasing power." Did Mr. Orchardson ever consider that the purchasing power represents the amount of energy that humanity can devote to the production of a special article?

Mr. Orchardson wants production regulated according to the needs of the people. That is a magnificent idea, the extent and grandeur of which Mr. Orchardson does not seem to be conscious of. The enviable savage, he tells us, "is not dependent on his fellow-man for the privilege to live, for the land and all nature's bounties are free and open to him, and stand securely between him and starvation." Who would not like to be a savage on these terms! Yet it is a pity that this ideal savage life is nowhere to be found. Does Mr. Orchardson not know that the wretched Indians who constituted the sparse population of this country not so many decades ago, suffered from famine every third or fourth year and several of their tribes actually perished from starvation? I read, in an account of the Amazon Indians, that among ten children scarcely one will live to maturity—in spite of all the bounties of nature that surround them. Production is there not limited by competition to the purchasing power of the people. Why do the savages in their enviable state not regulate production to their needs? Simply because production is naturally always limited to the power of production which in a civilized state is represented by the purchasing power.

The needs of people are unlimited, and to regulate production according to the needs of people would be an extremely difficult task. Do not the Amazon Indians need all the things which we enjoy now, and do we not need many more things, which we cannot under present circumstances produce.

"An industrious man who cannot find employment is in an awful position," says Mr. Orchardson. Certainly he is. Yet a man who is unable to work because he is unable to adapt himself to some useful work that is wanted, is in a worse condition still. The former may and probably will find employment after some time, but the latter if he find a hundred employments, will be fitted for none of them. Such a man will think that the world uses him badly, while it is he who does not understand how to use the world.

It is not true, as Mr. Orchardson contends, that the villain only can survive in the struggle for existence. I admit that many a noble-hearted man may fail in his endeavors by imprudence or misfortune, but it is certain that the villain will always go to the wall. The man "who grinds the face of his employees," "who evades liabilities, uses shoddy," and does other mean things, will not succeed in the competitive struggle. Let an employer try to run his business according to these principles, which as Mr. Orchardson supposes will ensure his success, and we shall see how long he can stand it. The business man who never "evades liabilities, never uses shoddy, never grinds his employees"—except when they do not attend to their duties—I am sure will best succeed in life.

It is true that some employers try to get as much work for as little pay as possible from their working men. They are mistaken. It is much wiser to pay them duly, punctually, and rather a little above the market price of their labor than below. Thus the employer will be able to select the best men for his work. And a good man for twenty dollars a week is much cheaper than a bad man for fifteen dollars.

On the other hand there are working men who think that they ought to give as little and as bad work as possible for wages that ought to be as high as possible. They are also mistaken. A working man should receive and must demand fair wages; if he shirks work, he cannot expect to advance in life or gain credit in the eyes of his employer, so as to make his employment permanent.

I should advise him rather to give higher returns in work than his wages are worth. At least I have always tried to act according to this principle and I do not think that I have fared the worse for it.

There are many things that ought to be different in this world and I can distinguish two kinds. First, there are evils and inconveniences which can be altered and to alter which is our duty. But there is another class of evils, i. e., the things which appear most unpleasant to many of us, and this other class is conditioned by the natural state of things. Such things are death and birth, the necessity of work in order to live, and many other contingencies.

A very pious farmer used regularly to pray in the following strain whenever a child was born to him: "God, my Lord, you know that I admire all your work, and that I find no fault with creation. But permit me to take one exception to an ordinance of yours: the way in which man is born. Why could you not have babes brought by the storks as was customary in the age of fairy-tales? Or why couldn't you make them grow on trees like apples, or have them hatched from eggs like little chickens. Good Lord if these thoughts are sinful, please forgive me. I cannot help them! Amen."

We may find fault with the nature of things, but there is no use praying for a change. We cannot alter natural laws. Of course we can better adapt ourselves to natural laws. Civilization is nothing but a better adaptation to nature; it is not the abolition of nature; it is not a superseding of her ordinances, but a prudent and wise accommodation to the inalterable conditions of nature. The form of competition may be altered; competition will vary according to circumstances, but it will be as little superseded as the law of gravitation.

Mr. Orchardson prays that production should be regulated not in accordance with our power to produce but with our needs. So would I pray if the prayer were not mere loss of time, and I can assure Mr. Orchardson that I have more needs than Mr. Bellamy can satisfy in his loftiest imagination. But I have thought it best not to hanker after mirages but to attend to my most urgent needs and try to do some work that might have a selling value so as to keep myself and my family alive with the compensation I receive for it.

We all agree that society can be better than it is. Therefore it is my most favorite enjoyment, a kind of high luxury, to work for human progress. But while I aspire for progress I observe that the worst among the many barriers that have to be removed before we can progress is the tendency to dream. Any one who expects relief through the hope of a fool's paradise, will never rid himself of his ailments.

Mr. Orchardson asks what I mean by the artificial barriers that are to be removed. Artificial barriers are those that prevent free competition. Institutions that create monopolies, or conditions that limit education to the rich classes prevent free competition. If these barriers are removed, competition will be fiercer and will make it impossible for an aristocracy of wealth to maintain their advantages without being worthy of them.

The very nature of life is strife. Strife appears in the savage state as a sanguinary warfare, and in civilized society during times of peace as competition. Even children animated with the kindest and tenderest feelings cannot even in mere play go along without some kind of strife or emulation.

It is not the abolition of strife that we can hope for, it is only its humanization. And indeed it is good that we cannot abolish strife, for striving means living for some purpose, and living without some purpose, higher than the mere enjoyment of life, would render existence worthless. Competition is the cornerstone of free enterprise and free enterprise is the condition of progress.

EASTERN NOTES.

TO THOSE who are learning the things which are behind, and pressing forward to things which are before, the moral atmosphere is full of new and exciting elements.

The winter in this section has had its usual polite diversions, Emerson-Browning clubs, Greek plays, enacted by the demoiselles of our modern Athens, gropings in the dust of Egyptian tombs, centuries old, here engaged the dilettante.

The votaries of reform in civil government have been constant and earnest in their public efforts, to maintain their cause, in the face of insults from the U. S. Congress, and the indifference of large numbers of the American people.

The young people are learning how to play their part in society by practice in the management of *Lend-a-Hand*, *Good-Will*, and *Good-Work*,—Christian-Endeavor, Kings-daughter, Kings-lamb, and other juvenile clubs.

The churches have passed again through the annual penitential season, and are entered on Easter days, the gladdest of the year. The call for change of creed-statement, whether voiced in conventions, or only as yet a mental cry, is still felt.

The ferment in Presbyterian synods has not yet made a breach in the walls of that sect. The hope of reforming from within is well sustained.

Dr. Martineau's words in England, "I am no more a Unitarian than I am a Trinitarian," would abolish the lines between all Christian sects outside of the state church. So far, in this country, his words have had small circulation.

There is evidence that the Episcopal sect is moving more generally than any other, on "the new works of new days." One of its ministers, tired of the formal prayer "for all sorts and conditions of men," singles out the Czar of the Russias for his prayers and efforts. He questions whether this nation is not justified in withdrawing diplomatic relations from a man who tramples on every human right, not only in the face of the laws of enlightened humanity, but of the laws of his own land.

Another, the founder of the Brotherhood of the Carpenters, joined the call of the mass meeting for Russian sympathy in Faneuil Hall, March 31st. He was the only Christian minister of Boston present. The Rev. John Brown, missionary to the Spinners of Fall River, was the only other representative of the Christian ministry present.

The several rectors of the churches in and about Boston have formed an association for the scientific study of the Hebrew and Christian Scriptures. Not many months ago, Dr. Phillips Brooks of Trinity Church, in his service to the students of Harvard University, expounded the twenty-third Psalm after the old fashion, i. e., how, under the soft influences of sky and cloud, and the reposeful occupation of a shepherd, David developed the devout feeling and expression of the twenty-third Psalm. Had Dr. Brooks first visited the sheep ranches and shepherds of South California, in their dreary monotony and silence so terrible that to continue long in the occupation is to efface the capacity for speech, it might have occurred to him that like conditions produce like results. He might have seen in the shepherd of California the shepherd of the Bethlehem hills. Sheep herding does not produce poetry of any kind. Does war and bloody rapine produce it? No man, adulterous, deceitful, and bloodthirsty as David was, could have written any of the Psalms. The scientific study of the claims of David to be the Sweet Psalmist of Israel leaves nothing of them. They are Israel's psalms, not David's.

Andrew White in the *Popular Science Monthly*, in his "Progress of Science" papers, perpetuates the error concerning the "Psalms of David." Such indifference to error shows that the Bible has not yet, neither with the theologian nor the scientist, come under the laws of literary criticism, but is still treated as sacred even in its errors.

In the Unitarian sect, while the error treated of here is acknowledged by the scholars, it is taught at least until a recent date, in the papers distributed in the Sunday-schools. The elimination of error, so important to the astronomer, has some importance when it concerns the text-book of the Christian religion.

This club for the scientific study of the Bible is a considerable straw, which indicates a change in the use of the book. It will indicate a still greater change when the clergy can publish the full results of their study to the people.

A recent translator of the psalms, one of a liberal faith, declared that he dared not use the corrected spelling of the word Jehovah—Jahveh—in his work. He feared the people would not accept the change as they had invested the incorrect form, Jehovah, with so much religious awe. So he made a note to his work, in fine print, in which he wrote the correction. Secular school boards are less timid. The Wisconsin School Board rules that the Bible, as a text-book of history, is entitled to a place in the public schools. Now, if a revision can be had, containing, without exception, every well established emendation of it, its presence in the common schools will prove an advantage to society. A common knowledge of it will in time remove the unreasonable prejudice against those who are accustomed to read it, and teach it from the latest and most honest versions. The principle of the Roman Catholic Church, that the people cannot safely be trusted with the common and incorrect version of the book has a ground of reason.

A dominant note now heard is that of the organization of Labor. "Dinna ye hear the pibroch, Donald"? Pipes at Lucknow, or call of Sumter were child's play compared to the great Labor demonstration throughout the world in behalf of the eight-hour working day.

The World's Socialist Labor Party by nightly lectures and discussions in its local sections, bears a large part in the work, which is directly educational. Nationalists for the nation, Christian Socialists for Christendom, and the Socialists for the world, are working in full accord toward a better condition for wage-workers.

Eighty thousand working men in New York City, two hundred thousand in Paris, the hives of Belgium, one million and a half of Socialists voting at the recent German elections, thousands in Austria, Italy, and Spain are moving. Even the Russian peasants are not yet so crushed that they do not respond to the spirit of the movement.

American working men, in convention at St. Louis, developed the plan. French working men, celebrating the centennial of the fall of the Bastille, embraced it, and it has now circled the globe.

We will trust that like the storming of the Bastille, it is no mere revolt against bad conditions, but that it will move a revolution toward better ones.

According to Carlyle the Bastille like the walls of Jericho succumbed to sound. May the sound of the tread of the world-army on the march, by its rhythmic vibrations, bring down the Bastille which might has built about Right! It is possible that the Socialist's ideal of society may come in the Old World first. When Herbert Spencer visited America, one of his surprises was, the light esteem in which the average American holds his liberty. The foreign worker has sought eagerly to emigrate to this country only to reap disappointment at witnessing the crimes here committed in the name of liberty. His warning and his protest have been ungraciously thrown back upon him, by all whose ease and security were threatened by any change for the better.

Would it not silence forever the boast of American freedom, if France or Germany should be the first of the nations to achieve the emancipation of her wage-serfs?

MARY GUNNING.

WALTHAM, April 22, 1899.

[Mrs. Gunning, it seems to us, is mistaken in her opinion regarding David. We shall not discuss the problem whether the twenty-third psalm is a hymn dedicated to, or composed by David. Nor shall we enter into a disquisition *à propos* of the comparison of the life of a shepherd nation, such as Israel was to a great extent in David's time, and the life of a California cowboy. We shall here confine ourselves to a few remarks concerning the pastoral poet of Israel.

In spite of all his faults, David was a man of moral aspirations. We must not forget the barbarous age in which he lived, illustrated by the atrocities committed by his enemies as well as by his friends. David always tries to be just towards his enemies, and never takes advantage of a situation that would stamp his action as cowardly or mean. He spared the sleeping Saul who had gone forth to seek his life. He does not prosecute the house of Saul, and he punishes those who hope for a reward for the commission of murder. When Abner was slain by Joab, David made amends as well as he was able, and gained the confidence of Israel by his spirit of impartiality and justice. The sins of David were bad enough, but they were no worse than those that any other person of his time in his position would have committed. Yet his good qualities were rare, and it is his virtues that secured his success in peace and in war. If Israel had had more Davids and no Solomon, the fruit of one of his sins, the house of Judah, would have met with a nobler fate in history than it did.—Eo.]

BOOK NOTICES.

Archdeacon F. W. Farrar writes an entertaining essay on "Literary Criticism" in the *May Forum*.

Dr. Schoenfeld has begun in the *Revue Belge* a series of excellent articles on "The Spain of the Arabs." (C. Marquardt, Brussels.)

From the *Humboldt Library* of New York (28 La Fayette Place), we have received the following reprints: "Modern Science and Modern Thought," in two parts, by S. Laing, price forty-five cents; "The Modern Theory of Heat, and the Sun as a Storehouse of Energy," illustrated, by Gerald Molloy, price fifteen cents; and "Utilitarianism," by John Stuart Mill.

In the *American Naturalist* for the few past months Mr. P. E. Stearns has presented an interesting collection of instances of "The Effect of Musical Sounds on Animals." The *American Naturalist* constantly demonstrates by the variety of its contents that its "devotion to the natural sciences in their widest sense" is a fact. (Ferris Bros., Publishers, Phila.)

A new biological magazine has appeared: *Zoe*, published monthly, in San Francisco. It will deal particularly with the natural history of Western North America, and will afford a medium of communication between the world and the activity of professional and amateur naturalists. We judge and hope that its career will be a successful one (*Zoe* Pub. Co., P. O. Box 2114, San Francisco; Subscription Price \$2.00 a year.)

The debate between Mr. Charles Watts and the Editor of the *Halifax Evening Mail*, entitled "Secularism—Is it founded on Reason, and is it Sufficient to Meet the Needs of Mankind?" has been printed in pamphlet form (price twenty-five cents) by the Secular Thought Publishing Co., of Toronto. The pamphlet is prefaced by introductory letters from George Jacob Holyoake and Col. R. G. Ingersoll, in which Mr. Watts's presentation is characterized as the best statement of the subject obtainable. Mr. Watts is to be congratulated upon his able and lucid exposition of the cause of Secularism. (Toronto, Canada.)

NOTES.

The Western Unitarian Conference is now in session at Chicago; during the day, in All Souls Church; during the evening, in the Oakland M. E. Church.

The Open Court.

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THE RELIGIOUS PROBLEM.

THE political, religious, and intellectual growth of humanity constantly produces changes in the conditions of society, and in times of rapid progress these changes may become so great as to demand the readjustment of our institutions of government, the reformation of church and school, and the reconstruction of our fundamental conceptions of the world and life. When the necessity, therefore, for readjustment and reformation becomes keenly felt, problems arise. Thus we speak of the social problem, the educational problem, the religious problem, and many others.

The religious problem results from the rapid advances made by science. Our religious conceptions, it is now generally acknowledged, can possess value only if they are recognized in their moral importance. Their dogmatic features are coming more and more to be considered as accessory elements, which can, and indeed often do, become injurious to the properly religious spirit.

The moral rules which we accept as our maxims of conduct in life, must have some basis to rest upon. We demand to know why and to what end the single individual has to obey certain commands, to observe which may sometimes cost great self-sacrifice. The old orthodox systems of religion cannot answer this question at the present day with the authority which the blind and unasking faith of their adherents formerly attributed to their utterances; and we are therefore brought to the task of remodeling our religious conceptions, in order to make them harmonize with the present altered situation.

The religious problem has been solved differently by men of different stamp. The orthodox theologian, of course, denies the existence of a religious problem. Being stationary he has not progressed with his time; he knows nothing of evolution, and looks upon the advances of science as steps towards depravation. He would solve the problem by checking all further progress, and would keep humanity down to the level of his own littleness.

The iconoclast, on the other hand, solves the problem by extirpating religion altogether. Like Dr. Ironbeard, in the German legend, he frees his patient from pain by a plentiful dose of opium, that lulls him

to eternal rest. It is a radical cure. Kill the patient and he will cease to complain.

The religious problem of to-day does not mean that we doubt the ten commandments. We do not object to the behests: "Thou shalt not steal," "Thou shalt not kill," "Thou shalt not bear false witness against thy neighbor." Nor do we object to the Christian ideals of Faith, Hope, and Charity; we do not oppose the rule, "Love thy neighbor as thyself." The religious problem means that we have ceased to believe the dogmas of the church. We have ceased to look upon God as a person who made the world out of nothing, and governs it at his pleasure. We have ceased to believe in miracles; we have ceased to believe in the supernatural and in the fairyland which, according to the dreams of former ages, existed in heaven beyond the skies.

So many illusions fell to the ground when the light of science was thrown upon them; but the moral command, "Love thy neighbor as thyself," did not. Science has destroyed the mythology of religion, but it has left its moral faith intact; indeed, it has justified it; it proves its truth, and places it upon a solid basis, showing it in its simple and yet majestic grandeur.

Science teaches that harmony prevails everywhere, although to our blunted senses it often may be difficult to discover it. Science teaches that truth is one and the same. One truth cannot contradict another truth, and when it seems so it is because we have not found, but will find, the common law that embraces these different aspects of truth which to a superficial inspection appear as contradictory. Science further teaches that the individual is a part of the whole. The individual must conform to the laws of the All, not only to live at all, but also to live well—to live a life that is worth living.

The properly religious truths are not the dogmatic creeds, but the moral commands; and it is their scientific and philosophical justification which is demanded by the religious problem of the present age. The solution of the religious problem must give us a clear and popular conception of the world, based upon the broadest and most indubitable facts of science so arranged that every one can understand the necessity of conforming to those laws which have built human so-

ciety, and make it possible for us to live as human beings a noble and worthy life. The solution of the religious problem will most likely do away with many sectarian ceremonies and customs, it will enable us to dispense with certain narrow views and antiquated rites, which many, up to this hour, look upon as the essentials of religion. But it will not do away with the moral law; for we know that that will never pass away. It is the moral law which Christ and the Apostles again and again declare contains the essence of all their injunctions: for the whole law is fulfilled in one word, even in this, "Thou shalt love thy neighbor as thyself," and "This is the love of God that we keep his commandments, and his commandments are not grievous."

AMERICAN AUGURIES.*

BY FELIX L. OSWALD.

III.

THE evils of intemperance can hardly be exaggerated, but intemperance is a relative term. If we could persuade our bibulous fellow-citizens to devote the early morning hours of their holidays to gymnastics, we might rely upon it that the evil effect of their evening amusements would be confined chiefly to their purses. Till we can diminish the vice itself, it might do no harm to diminish its power.

But we could even strike at the root of the evil if we should succeed in rekindling that gymnastic enthusiasm which in the time of Xenophon was the master-passion of a refined and high-minded nation. For, at bottom, the foolish resort to intoxicating drinks is nothing but an attempt to pacify the demands of an instinct which neither advanced civilization nor fargone wretchedness can ever suppress in the human soul: the craving for excitement. Man is an emotional animal, and in all ages and under all circumstances the human spirit has yearned for a diversion from the everlasting sameness of daily drudgery, and that yearning must be either satisfied or stupefied. The Greeks satisfied it with athletic games the Phœnicians with commercial adventures, the Romans by conquests, the Scythians by bear-hunts, and the Tartars by man-hunts. The modern Orientals stupefy it with opium and their western neighbors with alcohol. Our estimable reformers have tried to cure the evil in their own way and the quietistic effect of their prescriptions is not wholly lost, but there are moments when the elder instincts of our soul awake: spirits that refuse to be exorcised with homilies; and in such moments our necessitous brethren go to the rum-shop, to palliate a pang that defies the panaceas of our physical and metaphysical pharmacies.

The demand for moral prophylactics will compel our children to cultivate the art of making virtue more attractive than vice: of superseding evil by harmless amusements. The home missions of the twentieth century will encourage out-door amusements. Some of our wealthiest cities have parks, but they are too circumscribed in area and regulations. Seventy or eighty towns which forty years ago were satisfied with lard-oil lamps and a weekly gazette, have grown into cities in the West-European sense of the word; but their interior development is trifling in comparison with the metamorphosis of their environs. For every acre of ground covered with the handiwork of the brick-layer and stone-paver hundreds of square miles have been deruralized. Jungles and forests have become farms, the hillsides are occupied by orchards and the riversides by factories, lumber yards and fenced pastures. Within a large circuit of every great city land is money; there are no playgrounds left.

The Peabodys of the future will vie in the endowment of city parks, where our children can recreate their limbs, as well as their lungs, climb trees, jump ditches and chase each other through the underbrush without fear of being chased by the park-police, and where bowling greens, free music, botanical and zoological curiosities and competitive gymnastics shall counteract the attractions of the gin-shop.

Mountain-ranges are the archæological depositories of nature. Botanical and ethnological curiosities which have long vanished from the lowlands are still found in the mountain countries of the old world; cedars on Lebanon, Numidian oaks on Mount Atlas, tribes of a primeval hero-race in the Caucasus, aboriginal Basques in the Pyrenees, and mediæval republics in the Apennines. In the New World, too, a few tribes of the Autochthones will survive in the highlands. At the headwaters of the Hiawasee River a few hundred Cherokees monopolize an out-of-the-way corner of the State of North Carolina, where there is no arable land to speak of, and where their next neighbors do not envy them the emoluments derived from such sources of income as berry-picking and basket-weaving. In Oregon a tribe of the Bannocks has a similar reservation in the solitude of the Siskiyou Mountains, and in New Mexico a few dozen families of the Pueblo Indians cultivate their maize on a lonely plateau of the Sierra de los Mimbres.

With such exceptions, the race of North American aborigines will have disappeared before the end of the twentieth century. By that time game will be rather scarce. Squaw-power will have no chance against ten-horse power steam-plows; in the lowlands every square mile of arable land will be tilled and improved by the picked agriculturists of the progressive nations—Teutons, North-French, Hungarians, Scandina-

* Copyrighted under "American Auguries."

vians, and a few West Slavonians. The agricultural states of North America will be as thickly populated as the best farming-lands of the Old World; but immigration will continue till the population of the two continents has reached its practical equilibrium, i. e., till the larger resources of the New World have ceased to outweigh the larger number of inhabitants. After that a further influx of Eastern refugees will result in a reflux, or in an overflow toward the reclaimable portion of the South-American swamp-lands. The restored fertility (by tree-culture, etc.) of the great central plateau may for a while revive the current of westward emigration. But before that time the climatic influences of our different states will exert their ethnological effect. The Anglo-Saxons of Dixie will lose their ancestral characteristics, as the Lombards did in Italy, and the Visigoths in Spain.

They will become more eclectic in politics, and in morals more tolerant, in manners free, but æsthetic, in religion conservative—in a word, more easy-going. Belief is easier than inquiry. Political explosions, in Mexico, are easier than law-abiding consistency, easier than moderation and self-denial for the sake of principle. Even now the family-feuds of Kentucky and South Carolina seem to inaugurate the *vendetta* of an American Italy. Cool rationalism already gravitates towards the cooler latitudes. Boston and Chicago will remain the headquarters of speculative free-thought, but the chief pontiff of an American hierarchy will probably establish his court at New Orleans. The fine arts, too, produce their best fruits in a genial climate. The "Mother of Presidents" will add a Vancluse to her Monticellos; her sons will preside in the art-schools and musical academies of the future. Historical analogies would justify the prediction that the founder of a romantic school of American poetry will emanate from the Southwest—Nevada or California, where an Italian climate unites its inspirations with the grand scenic influence of the American Alps. The age predicted by F. G. Halleck, when

"We shall export our poetry and wine,"

will probably harvest both crops on the same soil. That soil may also produce the germs of some new form of fanaticism. Nearly all emotional creeds have originated in the South, the founders of northern sects having generally contented themselves with pruning the exuberant branches of such tropical plants. The "Latter Day Gnostics," as Karl Vogt calls our spiritualists, will transfer their dark cabinets to the *selvas oscuras* of the Magnolia states, and rely on the perennial summer of the South to attract the spirits of Summerland, and on Southern chivalry to overlook the impersonations of an occasional Katie King.

The romance of the Jesse Jameses should flourish

chiefly in the neighboring deserts of the Rio Grande basin. There is somehow a causal connection between treeless countries and brigandage; deserts seem to develop stiletto-bristling *picares* as naturally as thorns and thistles. Syria, Greece, and Northern Italy have produced the finest varieties, and the seed seems to adapt itself to the climate of Texas and Northern Mexico. The Rinaldini of the twentieth century will date their manifestoes from the Staked Plains.

But the North will remain the chosen home of political and speculative freedom, of inventive skill, of the mechanical sciences and the "faculty of reform." And there will be need of the latter talent. The time is not far when the products of our Mother Earth will cease to suffice for the wants of her children with their present household system. We waste about as much as we use. Our fields are full of weeds. Four-tenths of our tilled fields are devoted to the production of worse than useless stimulants. The sparrows on the housetops are the chief beneficiaries of our fire places, since four-fifths of the caloric escapes through the chimney. Our clothes benefit the weaver more than the wearer. We shift with annuals where we could have perennials. Few cultivators develop half the possible resources of their soil.

When the world's population per square mile of arable ground shall have reached its apparent maximum, famine will teach us a lesson or two, and the most important amendment in the agriculture of the future will be the substitution of arborescent food-plants for herbs. Cereals and hundreds of herbs have to be re-planted, re-cultivated and re-fertilized, year after year, and nearly all the products of that infinite labor could be derived from trees that take care of themselves, and improve with every season, while yearly crops exhaust the soil unless its productiveness is preserved by crop-rotation and artificial fertilizers that involve additional toil and expense. The Corsican farmers make very good bread of chestnut-flour. South of the Alps a chestnut tree will outlive three human generations, and a grove of those trees (bearing nuts as large as pigeon-eggs) will produce 3000 bushels of farinaceous material where the best Illinois corn-farmers could not produce one thousand. Chestnut-flour might be improved both by chemical and horticultural means, and the *castanea vera* is not the only bread-yielding tree. Asia Minor produces several varieties of sweet-acorn oaks and one nut-bearing conifer: the pistachio-pine that furnishes palatable surrogates for cereal breadstuffs. In pleasantness of flavor no cane-sugar or syrup can compare with the saccharine products of the Turkish sugar-plum. The finest rock-candy can be made out of oranges, sugar-pears, dates, figs, and Spanish cherries. The maple thrives

in the coldest latitudes of our northwestern territories, and in the Californian Sierras they have a sugar-pine that will yield as much as forty gallons of thick syrup per tree. Olive-oil might take the place of all other vegetable fats. In ancient Athens they used to sell it at two drachmas (about 30 cents) per *amphora* of four or five gallons, and the California plantations might make it cheaper than butter. A cow has to be milked twice a day and fed the year round on the produce of at least two acres of pasture land, while one acre of Sicilian olives yields a ton of their sweet oil in one harvest day and take care of themselves even on poor land in all but the driest seasons. The seed of oil-producing annuals has to be sown every spring. A cow isn't worth much after the twentieth year, but an olive tree will live two centuries, and according to Prof. Marchetti, occasionally even half a thousand years. In the North beech-trees could be cultivated, and perhaps improved, for the same purpose. With the same amount of artificial selection that developed a Delaware peach from the small almond-like fruit of the eastern persico-trees, the beech could be made to bear nuts as large as a plum. *Baum-wool*, the German word for cotton, means literally *tree-wool*, and several tropical trees, especially the *Bombacca*, could furnish that material in every desired quantity. *Bombax-wool* is almost as fine and strong as silk, and the length of the fibre might be improved by cultivation. If we must befuddle ourselves, *Kirsch-wasser* is as effective as rum, and less expensive. In the flower season cherries, chestnuts, and the perennial jessamine make better bee food than clover. The pods of the carob-bean, or St. John's bread (*Mimosa silica*), are more nutritive to cattle than turnips, and the tree is as productive as our honey-locust. Orchard-trees that hardly require any cultivation could keep every family in fruit the year round. Several varieties of Scandinavian apple-trees will thrive in northernmost Canada.

On a square mile of ground planted with such trees five hundred persons could live at ease where one hundred subsist now only by the hardest labor. By tree destruction man has forfeited his earthly paradise; tree culture will reconcile him to nature. A time will come when the great secret of this earth, the genesis of the desert—almost equivalent to the exegesis of evil—will become a familiar fact. That time will form a turning-point in the physical history of our planet.

[TO BE CONTINUED.]

THE ORIGIN OF LANGUAGE.*

BY LUDWIG NOIRE.

[CONCLUDED.]

WE have spoken of the part that appellations and proper names very probably played in the formation

* Translated by *Jaak* from Noire's *Die Welt als Entwicklung des Geistes*, (Leipzig, Veit & Co.)

of language. I leave it to the reader to follow out the hypothesis I have advanced, and shall only compare my theory with those that other philosophers have propounded, to point out wherein it differs from theirs and wherein it may be justified in opposition to theirs.

(1) In Herder's otherwise ingenious theory the element that occasions and forcibly produces speech-utterance is entirely relegated to the background. We cannot see what could have induced man to imitate the bleating of the lamb, and to attach the concept of the lamb to that imitation. According to this theory, primitive man must have been a meditative philosopher, an embryonic scientist; but this, surely, he was not.

(2) The theory of proper names upheld by Condillac, Adam Smith, and the rest, bears throughout the stamp of the eighteenth century, which with its customary subjective bias attributed to primitive man the reflective powers and intelligent purpose of later eras. According to Adam Smith two savages are supposed to agree in denoting a pond, a tree, and a cave by a given peculiar sound, and later to have conferred these proper names upon other objects. But even a tacit agreement of this character, the very perception, in fact, of the pond or tree as independent beings, required a capacity of thought that could be the result only of centuries of employment of speech.

(3) Geiger's theory—incontestably the profoundest of all that have hitherto been advanced—is based on the fact of science that in all languages the object is never immediately translated into the word, but that concept is in every case evolved from concept, and sound from sound. "Even proper names," says Geiger, "were all originally words that had a meaning." As far back as the science of language leads us to the most primitive meanings of roots, from which all words have been formed, these roots denote some human act plainly exhibited in gesture or attitude.

When we take into consideration the fact that language unquestionably originated in the necessity of *communication* (the parent of speech), it does not seem impossible that a sound summoning men to some work or other may have been the first word, as yet of very indefinite content, but which afterwards through various similar sounds became differentiated. But just the most important element of the soul of language is here lacking—that tranquility which is so necessary to reflection and the incipient fixation of percepts. Cries of this kind are and will remain interjections, the essential office of which is to bring about an immediate effect without the help of any further representation, especially as they are enforced by perfectly significant gestures, which in themselves constitute a sufficient language.

Proper names are, to be sure, words of a meaning. But if we recall to mind the particular occasions upon which at the present day we are led to designate a *being* by a *name*—to repeat, as it were, the primitive process of creation—we shall find that it is upon the occasion of the millions of cases in which we bestow a *proper name* upon a man or animal. The fact that among the thousands of proper names from certain plausible motives we should pick out just this or that name; that the Indian should call his offspring *Sleeper*, *Runner*, or *Cat*—this does not in the least detract from the importance of the fact. Thus, when for a long time we call a child by some endearing name, like *Da-da*, *Be-be*, or *Ja-ja*, we actually bestow upon the child a new name, suggested by some correspondent peculiarity. We have, therefore, thing and name, and not concept from concept. This point must not be underrated. It clearly speaks, in addition to the reasons previously adduced, in favor of the primitiveness of appellations, or names by which individuals were called. Once again let me repeat that the *representation* or percept of a congeneric being is the clearest of all perceptual representations: the calling bird possesses it as distinctly as it does the innate percept of its nest. The perception of limbs, of parts, or of acts, is an advanced abstraction. But the percept and recognition of congeneric man was so natural to the primeval human being that he applied it to everything and believed that every force acting upon him emanated from a will like his own—just as a dog will bark at the wind because he believes that it blows intentionally against him. And the most natural, simplest, innate, and, at the same time, the most interesting percept must have been earliest fixed by a sound, and have shaped itself into the first word.

I revert again, in conclusion, to the hypothetical example before adduced, in which the war-cry of a tribe was supposed to become, among neighboring tribes, the designation of that tribe. If it is true, as it certainly must be, that the tribal community during the earliest periods of social life wholly *absorbs* and *subordinates* the individual so that he can scarcely as yet be conceived as individualized, the hypothesis which I advanced as the possible origin of speech obtains a certain degree of probability; and granting that at any time but a *single* representation became connected with the word, it follows that the hitherto dormant power of creation of language must have been thereby stimulated, and have begun its at first hidden and humble activity, until at last the day dawned when the original springlets broadened into a river, and the rivers into the boundless ocean of the human mind as evolved through language.

Let the reader but endeavor to recall to mind when and under what circumstances the most immediate

and hardly controllable impulse to utter a sound arises, and he will be obliged to admit that it is at the moment of the highest exultation of happiness (the huzza of the mountaineers), or of deepest sorrow. This impulse is not granted insouciant beings. Beasts of prey have only decoy-calls and sounds that excite fear. Cold-blooded animals possess no utterance of the kind whatsoever. Hence the most primitive impulse to the utterance of sound originated first of all in the feeling of sympathy, and had the power, also, to awaken sympathy.

But there is a fact of observation far more important still, to the effect that whenever a *common feeling* becomes very intense, particularly when a common sensation, or the consciousness and impulse of common action, takes possession of men, sound spontaneously and involuntarily awakes in the vibratory organs of our body and bursts irresistibly forth. Anyone, who as a boy, has been caught with the enthusiasm of juvenile combat, or anyone who on some important emergency has lent a hand in common to some urgent work, for example, to pull ashore a ship in distress—will at once understand the truth of this remark. The howl of the baboon, in putting a pack of dogs to flight, is the prototype of this impulse within the animal world.

Sounds like these, accordingly, must have been established and developed with certain peculiarities during that pre-linguistic period when man still lived as an associate member of a tribe or a herd, and it is a perfectly consistent inference to assume that the diversities and contrasts of the separate tribes were attached and clung to these highly characteristic sounds.

In this way I have accepted and fully utilized in my hypothesis all that is undoubtedly true in the theory propounded by Max Müller, which, we will remember, was, that a certain sound is peculiar to every being, and that the spontaneous utterance of this sound is the most immediate expression of its nature.

What I regard as the chief excellence of my hypothesis is this: that it alone can explain how man, amidst the fleeting, ever dissolving world of phenomena, acquired the faculty to *isolate* a thing, to *retain* it and to *unite it with the word as a permanent perceptual existence*; a faculty denied all animals, and which in the course of natural development has led to general concepts and to the origin of human reason.

The first words were appellations of tribes or individual men; and their perceptual content comprised all that was known or observed of these tribes and men.

Even at the present day these words are of all words the most significant. Let the reader only ask himself whether he knows of any word replete with greater significance than that representing a beloved being,

or than words like: The Romans, Shakespeare, Beethoven.

But to close. In the statements above presented, I have endeavored, by the aid of the established results of modern linguistic research, to construct the lines by which a point is to be approximately determined that to further research must have remained inaccessible.

The reader must not forget that I have merely sought, in my hypothesis, to disclose the *possible* origin of language. In this obscure province, of course, certainty can never be attained. In conclusion, therefore, I shall propound another hypothesis, which likewise comprehends the possible origin of speech, and which is likewise worthy of our attention.

It is a peculiarity of the law of evolution, which may be found corroborated in the most diverse fields, that a number of co-operating forces or factors may produce a direction of development that is virtually amazing in view of the fact that it makes directly in favor of an apparently wholly immaterial element, and is guided by the same. We are very apt to forget, herein, that the stronger forces balance one another, and that the insignificant factor—like the drop of water that causes the glass to run over—naturally gains a decided preponderance. I shall give a few examples.

That Louis Napoleon, in the year 1849, could open the way to his subsequent political success was owing in a great measure to the circumstance that the other national parties were engaged in violent quarrels; that no reconciliation or mediation seemed possible, and that partly weary of internal strife, and partly prompted by the notion that the "president" would prove a "mannequin," an "imbécille," the people at last accepted his dominancy. Such really is the rational explanation of the historical evolution of France for a period of more than twenty years. And from exactly similar causes—from the implacable hatred of Legitimists, Orleanists, Bonapartists, and Socialists—grew up the septennate of Mac Mahon. We thus see that from the co-operation of different forces there frequently results an intermediate phenomenon, which is entirely different, the individual traits therein not being recognizable.

I shall further illustrate this point by a notable example borrowed from æsthetics. In Schiller's beautiful ballad "The Cranes of Ibisus" (*Die Kraniche des Ibykus*) the exclamation of the murderer: "Behold Timotheus, the Cranes of Ibisus!" (*Sieh da, sieh da, Timotheus, die Kraniche des Ibykus*) has been misunderstood by most readers. Or, they will say that it is trivial, that the poet, suddenly from his lofty style, drops into the commonplace. This is a great mistake, a lack of sound æsthetic discernment. One thinks

that the impressive chorus of the Eumenides ought to have been followed by a divine voice, crying: The murderer of Ibisus is Timotheus! Another maintains that the murderer, deeply affected, ought to have rushed into the midst of the arena, and exclaimed: I committed the deed! A third believes that the cranes ought to have pounced on the murderer and thus drawn upon him the revenge of the people. But the great poet skilfully avoided such lame methods, and chose an intermediate expedient that implies and includes the ones above suggested. For, in that the murderer at the appearance of the cranes utters his indiscreet cry, (1) the cranes have actually fulfilled their mission (we behold the stately, ominous flight of the silent accusers, amidst the stillness of the crowded amphitheatre); (2) the Eumenides also have revealed their power, because amid general consternation and awful silence the name of the murderer loudly resounded; (3) the murderers have really and truly, against their wish, impeached themselves.

It would thus be well for our æsthetical critics, instead of attempting to shine by their own feeble light, ever and deferently to seek instruction and enlightenment from the grand and inspired instincts of our great poets.

But to revert to the subject of language. At its origin we had to assume *two* main factors; namely, visual representation, or the inner perceptual image that man wished to excite in his fellow-men, and the means to effect this excitement—gesture or pantomime. Under the impulse of the moment this gesture was at all times accompanied by an inarticulate sound. If the reader ever witnessed untutored deaf and dumb people trying to express their wants by means of gesture-language, he will thoroughly understand what I mean. Gesture, accordingly, is the main point; sound is only an accompanying subsidiary element.

Now, this sound which with different gestures, took on peculiar modifications, by virtue of this very differentiation was able to attain a still more significant kind of independence. * And if we merely sup-

* There is still another phenomenon within the domain of human activity that presents a striking analogy to this process; namely, the assumption by money of the function of exchange of goods. Money has become, in the true sense of the word, a representative value. Still, in the beginning, when trade by barter existed, the precious metal was obviously a subordinate medium of exchange, because its practical value was inferior to almost all other things that served the needs of man. But its various properties—its divisibility, the possibility of easily preserving it a long time, and many other advantages—soon caused it to be received instead of all the others, as a universal medium of exchange. When more rapid circulation was demanded, a new species of representation—bills of exchange and paper money—took the place of metallic currency. Money, upon the whole, is a highly instructive subject for the theory of evolution, because in money the characteristics of evolution are symbolized as a particular distinct phenomenon, extending over great historical periods of time. As the word serves the mind alone, and is detached from the things, so money serves only to effect the exchange of objects, for it never occurs to one to consider its practical value adaptable for any other purpose, as for ornaments, etc. Such is the essential nature of function. In the same manner in animal organisms, the originally homogeneous parts, through constant activity, that is, through evolution, have been fitted for the assumption

pose two primitive roots, for example *He*, *he*, or *Ge*, *ge*, the call accompanied by the represented idea that the individual called is *to come*, and *Haw*, *haw*, denoting that he is *to go*—we already have an origin of language from which the same roots might evolve into others. In anticipation of the shallow irony of adverse critics, I shall baptise this theory of mine the *Gee-haw* theory, and ask whether even the calls of peasants to their horses are not also a kind of creation of language.

This hypothesis gains a high degree of probability from the fact that as far as our knowledge reaches, the oldest roots were really the expression of human gestures.

In this theory are also very distinctly represented all the impulses and motives which must be supposed to have operated in the first creation of language; namely, (1) the necessity of communication, (2) the sound emanating from common and concerted effort, (3) the gesture that originates from the perceptual image, and that naturally (4) is transformed into a gesture that tallies as closely as possible with this representation, and finally (5) the fixation of the connection between sound and perceptual image, which is affected through frequent reiteration.

THE THALAMIC REGION OF THE BRAIN.

THE upward continuations of the medulla are called the *Crura* (singular *crus*), the legs of the brain. They are the stems on which the Brain stands. These Crura consist on each side of two parts: the front part shows coarse longitudinal fibres emerging from the upper margin of the Bridge, called *crusta* (the crust); the hind part, covering the crusta, is called *tegmentum*, (German *Haube*, cover). Between both, on the upper surface of the crusta, where the tegmentum covers it, is seen a dark portion, called *locus niger* (the black spot).

The dorsal part of the tegmentum shows a narrow tunnel called *aqueductus Sylvii*, which connects the third and fourth ventricles. The upper roof of the aqueduct is overarched by the two fillets, which here decussate, and upon which the Four Hills rise.

Out of the tegmentum on each side a thick ganglion grows, called *thalamus opticus*, the lower part of which is the cushion or *pulvinar*. The Thalamus receives ascending fibres not only from the tegmentum but also from other sources. Through the external optic ganglion (*corpus geniculatum exterius*), it stands in connection with the optic nerve; through the

of certain functions. I believe, that if in the days of trade by barter we had told anybody that the time would come when we could pay for houses and commodities with a few pieces of rag paper, the man would have regarded us as crazy, just as the adversaries of the theory of evolution regard him who now maintains that the nerves, those wonderful conductors of sensation, were actually evolved up to this function from originally homogeneous, equally sentient elementary cells.

taenia semicircularis with the olfactory; and through the fillet (*laqueus*), with the auditory nerve.



DIAGRAM SHOWING THE RELATIONS OF CEREBELLUM AND PONS TO THE THALAMIC REGION.

The stem of the brain (or *crus cerebri*) consists of the crusta which lies in front, and the tegmentum which covers the crusta.

The optic nerve divides into two branches. The superior branch passes into the *corpus geniculatum exterius* (the external optic ganglion) which stands in connection with the thalamus—this part of the thalamus is called *pulvinar* (cushion)—and passes into the Anterior Hill (*A*) of the corpora quadrigemina. The lower branch passes through the *corpus geniculatum interius* into the Posterior Hill (*P*).

The fillet (*laqueus*) consists of three nerve bundles that connect the Four Hills and perhaps also the thalamus with (1) motory fibres of the spinal cord, (2) the trigeminal, and (3) the auditory nuclei. A decussation of the fibres of the fillet takes place under the Four Hills.

The anterior two of the Four Hills are in some way related with vision as a sensory process; while the posterior hills exercise a decided influence upon the motory actions of the eyes. Animals in whom all the parts down as far as the apparatus of the Four Hills have been removed, exhibit not only all the usual reflex motions against light (e. g., contraction of the iris), but are also able to regulate other motions by what they see. When trying to escape they avoid obstacles placed in their way, they follow with their head the motions of a light, etc. Thus it appears that the Four Hills, independently of the higher brain-organs (especially the Striped Body and the Hemispheres), exercise some regulative influence upon ocular and other muscular motions.

According to Dr. Luys's hypothesis, the Thalamus ought to be considered as a condenser of sensory impressions, and the Striped Body (*corpus striatum*), a condenser of motory impulses. This, however, agrees neither with anatomical facts nor with pathological and experimental observations. It is irreconcilable with the results of Meynert's investigations. "Neither can," says Wundt, "the connection of all sensory tracts with the Thalamus be proved, nor, on the other hand, is its connection with motor tracts to be doubted." The fillet (*laqueus*, Germ. *Schleife*) consists of several tracts among which there are motor nerves entering in their peripheral course the spinal cord.

Prof. Schiff proved by experiment that if in an animal one Thalamus is cut through, a disturbance will be observed in the direction of the animal's walk and in the position of its legs. Instead of walking on in a straight line, it moves in a circle. If the section is made through the posterior third of the Thalamus, the animal will turn towards the side of the non-injured half of the brain; if it be further in front, it will turn in the opposite direction. The French call these strange disturbances "*mouvements de manège*," because they are like the epicyclical manœuvres of horses in circuses.



HORIZONTAL SECTION OF THE BRAIN, THROUGH THALAMUS AND CORPUS STRIATUM SLANTING DOWN ON BOTH SIDES FROM THE MEDIAN LINE. (After Edinger.)

The nucleus caudatus is on both sides cut in two places. The thicker section, joining the two parts seen in the cut, is its head, the smaller its tail. The head borders in front on the descending part of the corpus callosum (*Balken*). Its tapering body stretches along the thalamus, so as to separate the concave surface of the thalamus from the corona radiata.

The lenticular body consists of three stripes, the outer one being the shell or putamen, the two inner ones the globus pallidus.

The lenticular body and nucleus caudatus constitute the Striped Body.

A bundle of radiating fibres, passing to the occipital lobe, are the paths of the optic centre. The claustrum or Wall is a gray layer of unknown functions situated underneath the insula.

These motions are determined by an abnormal position of the body, as can be observed even when the animal is at rest. If the section is made through the hind part of one Thalamus, the animal turns its fore-feet round towards the side in which the injury has been made, while neck and vertebral column are turned in the opposite direction. "An animal" (says Wundt, from whom this account is taken) "will naturally move in the indicated abnormal direction, if it gives the same quantity of innervation to the intended movements as before, in a similar way as a ship will be thrown out of a straight course by a turn of the

rudder." If the anterior part of the Thalamus be injured, the neck and feet take a position just in the inverse direction; hence the inverse movement.

The Thalamus, accordingly, is a reflex centre that controls or influences certain motor nerves; and we consider it as the organ of co-ordination for the nervous tracts of the tegmentum. An animal whose Hemispheres and Striped Body are removed, is able to execute all motions however complex; a fact which ought to be impossible according to Dr. Luys's theory.

Dr. Luys, it seems, was induced to propound this hypothesis because lesions of the Thalamus, although they cause disturbances, do not produce any paralysis. This, however, will find a sufficient explanation, if we consider that, in the extremely complex brain mechanism, there are other channels which will send sensory impressions to the hemispheres even if the co-ordinative centre of the tegmentum and other sensory nerves be excluded. An injury to the Thalamus may produce disturbances, as in the experiments above described. Yet these disturbances can and indeed they will be corrected after some time if but the other tracts that connect the hemispheres with the sensory organs remain uninjured; and thus the symptoms will eventually disappear. The rotatory motions (*mouvements de manège*) will cease to be noticeable within six weeks, and this fact, it seems to me, corroborates our supposition that the Thalamus is an organ of co-ordination inserted between the tracts of the tegmentum and the optic nerve on the one side and the hemispheres on the other. Its function, however, can be performed by the Hemispheres as well—perhaps with a greater effort of conscious attention—and a patient, suffering from a lesion in the Thalamus may become accustomed to it.

This would explain why the pathological reports of post mortem examinations in which a degeneration of the Thalamus has been proved, throw little, if any, light, upon the subject.

For special students of physiology, the following passage, quoted from Dr. C. Wernicke (*Lehrbuch der Gehirnkrankheiten* I, p. 191), may be of interest:

"In the case of a girl of fourteen years, a tuberculous subject, Meynert observed a pathological condition of the head, spinal column, and upper extremities, lasting seven weeks, which he thought analogous to the condition produced by Schiff's section of the posterior part of the left thalamus in animals. His diagnosis was accordingly, degeneration of the left thalamus. The head and spinal column were turned to the right, the head having also a downward inclination, and there was a slight curvature of the spine pointing to the right side; the right arm was flexed and the left kept extended. If by manipulation the opposite movement was executed, considerable resistance was experienced. Afterwards the left arm was also flexed but now offered little resistance to extension.

"The posture of this girl, whose mind was previously affected, seemed to rest on fixed ideas; but it could be voluntarily given up,

upon the occasion of rare exercises of will power to which she could be brought. Consequently there was no paralysis.

The state of affairs experimentally produced by Schiff and which he has attributed to paralysis, Meynert did not conceive as such. For a rabbit prepared in this way was, as Schiff reports, still able to wipe mustard from its nose, with the paw supposed to be paralyzed. Moreover the same change of position took place in animals also, the hemispheres of which Schiff had previously removed. According to Schiff's own view such animals are not capable of voluntary motion but only of reflex motions. Under these circumstances, the paralysis of flexors or extensors could not possibly make the antagonistic groups predominant. Consequently some other explanation of this change of position was necessary, and Meynert finds it in the supposition of an interruption of certain paths of muscular sensation. That such paths must be contained in the thalamus, respectively in the Four Hills, is proved by the experiments of Golz. Frogs whose hemispheres are removed, and in whom the mentioned ganglia are preserved show a wonderful adaptation for restoring the disturbed equipoise, if the place on which they sit is put out of its equilibrium. In frogs whose hemispheres are intact, the thalamus must accordingly be a centre of the muscular sensation in which this disturbance takes place.

"A lesion of the thalamus as produced in the experiments of Schiff, according to this conception, leads consciousness astray concerning the position of the body. This girl had no muscular sensation in certain muscular regions, and she tried to attain it, through forced contraction of these very same muscles, the flexors of the right, and the extensors of the left arm. In the left thalamus accordingly, the flexors must decussate, whilst the extensors do not. The former would correspond to the roots of the tegmentum, decussating in the thalamus through the posterior commissure, the latter to the *laminæ medullares*, which do not decussate. If the degeneration extends to the left side, the flexors of the left arm are attacked also; in that case the muscular sensation of both extensors and flexors was missing. Hence the rigidity of the arm was changed during the progress of the disease to a loose condition of flexion easily overcome."

The Four Hills and the Thalami are the most important parts of the thalamic region, yet there are a few more structures which deserve at least a passing mention.

Between the Thalami and the Four Hills on the dorsal side appears a small body shaped like a pine cone, which is called epiphysis or pineal (i. e. pine-cone-shaped) gland. This pineal gland (*conarium*, Germ. *Zirbel*) is interesting not only because, being the only part of the brain that appeared single, the philosopher Descartes considered it as the seat of the soul, but also because later researches have proved it to be a rudimentary eye.

The pineal gland is the larger, the lower an animal ranks in the scale of evolution; it corresponds in certain amphibia to an aperture in the skull, and a kind of lizard has been discovered in which under the skin the rudimentary eye is still preserved.

This eye in the back part of the head must have been very useful when our ancestors still lived in the depths of the sea. Enemies who approached from behind could be discovered before it was too late. But when our ancestors changed their element and

lived on the shore, they had to expose their third eye so much to the burning rays of the sun, that they kept it shut for ever. And it became gradually a rudimentary organ.



SAGITTAL SECTION OF THIRD AND FOURTH VENTRICLES. (After Reichert).

- Th.* Thalamus opticus.
P. Pineal gland (*conarium*).
Q. Corpora quadrigemina, or Four Hills.
th. Habenae conarii, the reins of the pineal gland. Thin nerve-fibres, originating in the thalamus and entering the pineal gland.
cm. Commissura media; the middle or gray commissure, being the place where the gray substance of the two thalami is connected.
c. a. Commissura anterior. The anterior commissure (seen here in a cross section) consists of white fibres. Its anterior part is formed by crossing fibres of the olfactory nerve. Its posterior part connects both temporal lobes of the hemispheres.
c. p. Posterior commissure. Three distinct little bundles of white fibres, connecting both thalami.
l. c. Lamina cinerea, a band of grayish fibres.
II. Cross section of the optic nerve in the chiasma.
III. Third nerve.
VI. Sixth nerve.
f. Root of fornix.
H. Hypophysis or pituitary body.
t. c. Tuber cinereum.
A. Corpus mammillare or corpus candicans. Its ganglionic nature is best seen in Edinger's diagram, "The Thalamus and its Relations."
V3. Third ventricle.
V4. Fourth ventricle.
a. z. Aqueductus Sylvii, the tunnel between *V3* and *V4*.
f. Infundibulum.
u. Interior medullary velum, covering the lower part of the Fourth Ventricle.
Pv. Pons Varolii.
Cr. Crus cerebri.
m. Medulla oblongata.
cl. Clava.
c. Medullary canal.
Py. Pyramid.
d. Pyramidal decussation.
ar. Arbor vitae, or the tree of life in the small brain.
cc. Folium cacuminis.
st. Superior vermis; upper part of the worm.
1, 2, 3, 4, 5, 6. Lobes of cerebellum.

There is another body hanging on the ventral part of the brain, called hypophysis or pituitary body. It is a slimy mass of unknown functions. One thing about it is certain, namely, that it does not belong to the brain; it does not consist of nervous substance. In some of the lower animals (viz., in the vertebrates that are not mammals) it lies much lower and stands in no connection with the brain whatever. According to the investigations lately made by Flesch and Dostojewsky, this body is similar in structure to some extremely active glands and thus it appears probable

trembling and dismay are even now the least appropriate to enter into the pure, clear, and tranquil sphere of speech-thought (*λογος*), or to supply the first germs of it. The same objection applies of course to my own theory." . . .

"And as I recognize the insufficiency of my own hypothesis," he continues, "it was impossible that the whole philosophical significance of the problem, and the crying disproportion between it and his own slightly uttered guesses, could long remain a secret to the serious and profound mind of Darwin. He too in a clear and considerate confession has admitted the inadequacy of his former views, and I can do no better than quote his last words which dispose of our common phantasmagoria once and forever: 'But the whole subject of the differences of the sounds produced under different states of the mind is so obscure that I have succeeded in throwing hardly any light on it; and the remarks which I have made have but little significance.'"

We cannot sufficiently honor the noble spirit that dictated these words, particularly if we compare it with the manner of other philosophers who seem to consider the suggestion that they could ever grow wiser as the greatest insult. Love of truth is better than even the full possession of truth,—and Darwin knew it.

In diverging from his own as well as from Darwin's view of the origin of language Noiré at the same time parted company with Geiger, whose thoughtful works, "On the Origin of Human Language and Reason," 1868, and "On the Origin of Language," 1869, had formerly exercised a powerful influence on his own philosophical opinions. Geiger too, like Noiré and Darwin, thought that he could discover the first beginnings of language in voluntary interjectional sounds; nay, though he himself so clearly recognized the impossibility of separating reason and language, he nevertheless maintained, as I have pointed out, that "Language has created Reason, and that before there was language, man was without reason." It is difficult to understand this statement, and I cannot help thinking that it was meant only as a protest against the received opinion that language is the handiwork of reason, and that, like many other protests, it was expressed in rather too strong language. If he had said that with every new word there is more reason or that every progress of reason is marked by a new word, he would have been right, for the growth of reason and language may be said to be coral-like, nay, even more simultaneous than the growth of corals. Each shell is the product of life, and becomes in turn the support of new life. In the same manner each word is the work of reason, but becomes in turn a new link in the growth of reason. Reason and language, even if we must distinguish between them for our own purposes, are always held together in mutual dependence. By reason we count and name two as one. Having done that, we keep the bundle in our mind or memory both as a concept and as a name, and we go on making new bundles, till our mind becomes richer and richer, like a dictionary, our reason stronger and stronger by exercise, like a muscle. But it cannot be repeated too often that reason by itself and language by itself are nonentities. They are two sides of one and the same act which cannot be torn asunder, an act which the Greeks alone called by its right name, *Logos*.

In his last works, "On the Origin of Language," 1877, "On the Origin of Reason," 1882, and "Logos," 1885, Noiré begins his argument by pointing out a well-known fact, that whenever our senses are excited and our muscles hard at work, we feel a kind of

relief in uttering sounds.* He remarks that particularly when people work together, when peasants dig or thresh, when sailors row, when women spin, when soldiers march, they are inclined to accompany their occupations with certain more or less rhythmical utterances. These utterances, noises, shouts, hummings, or songs are a kind of natural reaction against the inward disturbance caused by muscular effort. They are almost involuntary vibrations of the voice, corresponding to the more or less regular movements of our whole bodily frame. They are a relief rather than an effort, a moderation or modulation of the quickened breath in its escape through the mouth. They may end in dance, song, and poetry.

These sounds Professor Noiré thinks, and seems to me to think rightly, possess two great advantages. *Firstly*, they are signs of repeated acts, acts performed by ourselves, perceived therefore and known by ourselves, and continuing in our memory as signs of such acts. Now what is the sign of a repeated act but the true realization of what we call a root embodying a concept, comprehending the many acts as one? These signs are not signs of objects perceived by our senses, for though each blow of an axe may be seen by the eye and heard by the ear, the willed act of striking with the purpose of felling a tree is never perceived by eye or ear. They are not the signs of things, but the signs of our own consciousness of repeated or continued acts.

Secondly, these sounds being uttered from the beginning, not by one solitary individual only, but by men associated in a common work and united by a common purpose, possess the great advantage of being understood by all.

As soon as I became acquainted with these views of Noiré's I saw how natural a solution they offered of a problem which I had long tried to solve in a similar but not exactly in the same manner, and I could not help saying to him *εὐχαριστοῦμαι*. Like most true solutions, his theory of the origin of roots seemed to be in harmony with everything else. It was known, for instance, that the primitive or primary roots of the Aryan family of speech expressed mostly acts, and not states, and that most of these acts were such as we might suppose to have been familiar to the inhabitants of cave-dwellings or lacustrine huts, such as digging, cutting, rubbing, pulling, striking, plating, weaving, sowing, rowing, marching, etc. Noiré's theory would not only explain, but would actually postulate these facts. It would postulate roots expressive of actions, of common or social actions, and lastly, of creative actions, that is to say, of actions producing in a tangible shape the result which had been intended. With such a root and concept as to dig, for instance, it was possible to name, that is, to know a cave, not as something dark or hollow that came accidentally within the ken of our senses, but as something which men had made with their own hands and with a definite purpose, as something which was what it was meant and made and known to be, as an object of our intellect far more than of our senses.

Again, the old question why animals should have no language, though it had received many answers already, received a new and unexpected answer from Noiré's theory. No man would ascribe to animals creative actions, actions performed with a purpose, and, we must add, with a free choice, and hence animals could not have had signs accompanying and afterward signifying such actions.

But though I felt from the first that there was an element of truth in Noiré's theory, I was by no means prepared to accept it at once as a solution of the whole problem. I felt quite as strongly as others the objections that might be raised, but it was in testing these objections that I discovered more and more the real strength of Noiré's position.

* This point has been well illustrated by Darwin in his *Expression of the Emotions*, chap. iv.

* Darwin, *Expression of the Emotions*, p. 93. I did not see formerly in these words of Darwin's so complete a retraction of his own philosophy of language as Professor Noiré imagined, because Darwin never expressed his disapproval of some of his followers continuing to defend it. I am willing to admit, however, that a philosopher cannot be made responsible for all that his followers say and do, and I know that no one yielded more readily to argument than Darwin.

I asked myself, if the elements of language were nothing but roots expressive of acts, how it would be possible to express, for instance, what we see and hear and taste. How, I said, are colors to be expressed, such as black, white, blue, yellow, etc. They are not acts in any sense of the word that could be compared with our own acts. Whatever view we take of sensation, we seem passive in receiving the sensations of color, and the colored objects seem passive as perceived by us. Noiré's theory, however, comes triumphant out of this dilemma.* The name of color in Sanskrit is *varā*, clearly derived from VAR, to cover. Color therefore was conceived originally as the result of the act of covering or smearing or painting, and not till the art of painting, in its most primitive form, was discovered and named, could there have been a name for color. Thus Lat. *color* is supposed to be connected with *oc-culere*, *χρῶμα* color, with *χρῶς* skin, etc.† Another root for painting and smearing is *an-g*. From it we have not only Lat. *unguere*, to besmear, to anoint, *unguentum*, ointment, but Sk. *ak-tu*, ointment, tinge, dark tinge and night, and likewise light tinge or ray of light, Gr. *ἀκτίς*. Here we have the first instance of the uncertainty in the meaning of the names of color which pervades all languages, and can be terminated at last by scientific definition only.

Black and blue are often mixed up together, so are black and brown, nay, even the green grass and the blue heaven are often described as of the same hue in the Indian tongues.‡ Nor need we wonder, if we consider the etymological meaning of these names. In Old Norse *blár*, *blá*, *blatt*, which now means blue, meant originally the livid color of a bruise. Grimm traces this, and Old High German *plān*, Med.-Lat. *plavus*, Fr. *bleu*, back to Gothic *biggvan*, to strike, and he quotes as an analogous case the Lat. *caesius*, bluish-gray, from *cadere*, to cut.

Black seems to be connected with the root BHRAG, which means to shine, and from the same source *bleak*, A. S. *blēc*, *blæc*, O. N. *blekr*, O. H. G. *pleih* have been derived with more or less certainty.

This shows how words the most unlikely to be derived from roots expressive of subjective acts can nevertheless be proved to confirm rather than to weaken Noiré's theory.

Likewise, that outward sounds which we perceive should be conceived as uttered by agents like ourselves is perfectly intelligible. A hissing, gnashing, crunching noise would naturally be assimilated to the noises which are produced by man himself or by the instruments which he employs.

And with regard to tastes, too, we see the same mental process. *Sharp* is cutting, *bitter* is biting, *hot* is burning, *mild* is rubbed down and smoothed, *sour* may have meant originally scratching, *sweet*, good-smelling. In all these cases our sensations were clearly conceived as produced by agents without us. Gall by being called bitter was really conceived at first as a bitter, under the influence of what we call Fundamental Metaphor.

Noiré has likewise met the objection that many activities of sense and mind are not really activities, by showing that anyhow they were conceived as activities by the early framers of language. To see may in many respects be a passive state, yet when it was expressed by *vid* in *video*, and if this *vid* is the same as *vid* in *dividere*, then to see was conceived as an act, as the act of distinguishing. So if *tkh*, to see, comes from *ai*, to attain, it would have meant originally striving to reach, just as *intendere*, becomes in French *entendre*, to hear.

* Noiré, *Logos*, p. 260.

† Curtius, *Grundzüge*, p. 114.

‡ Powell, "Mythology of North American Indians," p. 23, *Report of Bureau of Ethnology*, 1881.

CORRESPONDENCE.

A WORD FOR FRANCE.

To the Editor of *The Open Court* :—

In a preceding number of *The Open Court* (No. 136), in a review of an English book, the reviewer, "M. M. T." says:

"Mr. Laing's reflexions on 'armed Europe' are excellent, and well supported by facts of the situation. They almost make us despair of either disarmament or peace. Mr. Laing throws upon France the responsibility for this unhappy state of affairs, and he supports his accusations with convincing reasons. He sums up by saying: 'No general disarmament is possible unless France sets the example.' As France will do nothing of the kind, all Europe, and especially Germany, must continue armed."

These lines are inimical, unjust to France, and calculated to mislead the unsuspecting American reader.

When Germany is united and armed in the hand of an irrepressible, irresponsible, and ambitious young ruler, who craves for first laurels, it would not be wise for France to imitate that foolish lion of Esop which let itself be persuaded to "set the example" of disarmament by clipping his claws and pulling his teeth, only immediately afterwards to be ignominiously beaten by the person who before had so great a respect for his force.

Let it rather be well understood that "the facts of the situation" evidence that "this unhappy state of affairs" is in reality due to the enemies of France only—to their covetousness. It is they who "first" ought to disarm.

So let the candid Gallophobe Mr. Laing, seconded by the no less candid M. M. T., advise both England to disarm her navy and Germany to disband her armies "first."

But as they "will do nothing of the kind, all Europe, and especially France, must continue armed."

A general disarmament will be possible only when all European nations will have become democratic and federated as the "United States of Europe";—or when some victorious prince will, by war or conquest, have made himself the master of all Europe, and restored the empire of Charlemagne; a restoration that, at Cologne, not long before his death, the father of the present emperor of Germany had proclaimed to be the mission and aim of his family and people.

F. DE GISSAC.

FREEDOM OF WILL AND RESPONSIBILITY.

To the Editor of *The Open Court* :—

I must frankly state as a Rationalist that your editorial "Freedom of Will and Responsibility" is not to my mind logical or scientific. Free will is not necessary to responsibility. Responsibility is made necessary by the law of necessity. By that law we hold animals responsible as well as men. We cannot separate man from the universe, as your editorial implies. You admit law in the environment but deny it in the organism. Hagan, you say, "proves to the Queen of the Huns his freedom of will" in refusing to divulge the place where the treasure of the Nibelungs is hidden. On the contrary, to my mind, he proves his subjection to law, unless there can be an effect without a cause. Inductively, the organism is subject to law as well as the environment; if that in the organism is stronger than that in the environment, the organism will triumph and *vice versa*. The proud decision of Hagan was the result of hate in his organization. He hated his adversary so much that it gave him greater pleasure to die than to reveal that which would please her. If he had loved her, the case would have been different. Neither the organism nor its characteristics can be without cause.

Religion says ought, because it is adapted to man in his undeveloped state. Science may say "must" forever to an undeveloped man, and he will not heed its must; he will obey the

laws of his being; that is why there has been a religious environment, showing a false side of things to make men fear. To a highly developed moral man the word ought is not necessary. He must, from the very nature of his being, perform moral acts as harmoniously as the needle points to the pole. He performs them without effort. As the tree is, so is the fruit. The basis of morals is in the strength of the individual, not in religion. Religion is to man what the policeman is to the thief—a whip to drive him to action. The moral man needs neither policeman nor religion. To be in harmony with the All is simply to have affinity with the All, not driven to bow to the All by the religious ought, but by the development of a character which is in harmony with it.

To my mind monism is that philosophy which recognizes the oneness of All-existence, and the science (not religion) of monism teaches that the individual is a part of the whole, has to conform to the cosmical laws of the All; and having of necessity to conform he is not free; being a part of the All he cannot be free from it, neither by organism nor environment. If religion is man's aspiration to be in harmony with the All, there can be no religion after he is in harmony with it, and when he is in harmony, science takes the place of religion. I really cannot see any place for religion when we grasp the truly scientific. Scientific enthusiasm is created by being in harmony with the truth, the same as religious enthusiasm is created by being in harmony with error.

Yours Fraternally,

JOHN MADDOCK.

[MR. JOHN MADDOCK apparently misunderstands the position taken in the article "Freedom of Will and Responsibility." Freedom of will is defined, not in a theological or metaphysical sense, but in the physical or natural sense, as the power to do that which one wills. A slave who works because he is compelled to work is not free; he acts under compulsion; but a man who works because he is eager to perform a certain work, is free; he acts of his own free will.]

The old theological or metaphysical conception defines Freedom of Will as the freedom of a man to will whatever he wills. This definition is widely different from our definition "to do that which one wills." According to this wrong view of the Freedom of Will, generally called indeterminism, the decision of a man is not bound, not determined by any law; he may will as he does, but he might under the very same circumstances will differently.

Indeterminism is based upon error; it attributes to man an exceptional place in the universe; he is supposed to be exempt from natural laws, and the rigid law of cause and effect, it is maintained, does not apply to his will.

Mr. Maddock's objections are all valid and sound against Freedom of Will in the metaphysical sense, viz., against indeterminism, that a man can will whatever he wills. Indeterminism admits law in the environment in nature, but denies it in the organism, in the will of man. Indeterminism declares that there is a cause for every natural phenomenon, but there is no cause for human action; man is supposed to act without a cause. This view is the very basis of dualism, and we have repeatedly called attention to the untenableness of its position.

Matters are very different, if our definition of Free will is accepted. The decision of a free man depends upon his character. He will not yield to compulsion, but act as he sees fit. And a free man must of necessity will and act as he does. This theory of free will is not indeterminism; on the contrary, it is in accord with determinism.

We are wont to call a man who is easily carried away to inconsiderate actions, a slave of his passion. The action of a rash man may be called free, because he acts without compulsion; yet he is not free in so far as his decision is made without proper delib-

eration. One part of his soul alone decides his will, and this part, at the time unduly strong, suppresses all other thoughts, all nobler ideals, and worthier considerations. His better self is not allowed to be heard on this occasion and does not speak until it is too late. The result of such action is called regret, or if it be very strong, remorse.

A man who either from ignorance or malevolence does not care to have his decisions governed by justice and rectitude, will commit actions which he would have to regret if he were a moral man. Such a man society forces by its judicial and police institutions to do right. Such a man is not free; society makes him a slave of the laws of society; "he needs a policeman," as Mr. Maddock says. And I believe every one of us possesses a tendency to overstep the limits of our rights and infringe upon our neighbors'. Yet at the same time, every one of us is animated (if it were not from natural kindness it would be from mere egotism) by a spirit of benevolence toward our fellow-beings and the good intention to be a useful and worthy member of society. In that case, however, the law would become part of our soul; "the policeman," to use Mr. Maddock's expression, would be within us; and in that case our decisions, being regulated by ourselves, would be the expression of our own character. We would not be slaves of the policeman; we would be policeman and subject in one person; and accordingly would be our own commanders; we would be free.

Mr. Maddock speaks of religion as if it were superstition. He considers religion and science as antagonistic. Religion, as we understand it, is not antagonistic to science, but is identical with science. It is science combined with the enthusiasm of applying its ethical results to practical life.

Mr. Maddock says: "the moral man needs neither policeman nor religion." This is very true because a moral man *has* religion and at the same time he has his own policeman in himself. F. C.

NOTES.

We had a ghoulish habit in the army of coveting dead men's shoes. Scouring the battle-field to strip the feet of the slain, though perhaps a reasonable thing for ill-shod men to do, blunted the finer sensibilities, and made us more animal and less human than before. Metaphorically speaking, this coveting of dead men's shoes is a vice as prevalent among our politicians in these days of peace, as it was among the soldiers during war. A few days ago a senator of some popularity and importance died suddenly in a railroad station at Washington. There was a momentary shock of surprise, a twinge of sorrow, and then sentiment gave way to "business." Before the dead statesman had been put into his coffin there was a scramble for his official shoes, a scouring of the plain having a very unpleasant resemblance to our old habit in the army. Before the burial day had been appointed, eager partisans, careless of the feelings of the bereaved family, were showing what an excellent fit the dead man's shoes would be for Carlisle, Breckinridge, McCreary, Geary, Neary, or O'Leary. They could not wait for the closing of the grave before conjuring and canvassing for the vacant seat in the senate. An attempt to improve the commandments may seem irreverent, but the following amendment might not be out of place. "Thou shalt not covet a dead man's shoes."

The swearing in of Mr. Cleveland as an attorney of the Supreme Court was a picturesque affair, very American in all its dramatic elements. It was a sight worth seeing. A man who had been President of the United States, asking admission to the bar of the Supreme Court on terms of absolute equality with the humblest lawyer there, was an example of democratic simplicity which deserved all the gushing glories poured upon it by the press. True, it was only the form and shadow of democracy that

appeared so vividly in the Supreme Court room at Washington, but even as a shadow, it may remind us of the substance which once was ours, but which, like the picture in a magic lantern, is now dissolving into a Plutocracy, or into an Aristocracy based on money, and on that alone. Not to be cynical, the incident is a pleasing reminder of old Cincinnatus and his plough.

While that pictorial scene in the Supreme Court room is valuable as a vindication of our democratic theory of government, the spectacle itself was not altogether free from some inharmonious qualities which make us wish that an Ex-President might never have to practice in the Supreme Court for money. Mr. Cleveland appeared as an attorney before a court, of which the Chief Justice and one other member had been appointed by himself. While this might not seriously affect the opinions of those judges, yet there ought not to be any cause for jealousy on the part of the counsel opposed to Mr. Cleveland. It would be better that a retired President should never feel the necessity of practicing in a court where any of the judges owed their places to his partiality and favor. It is no reflection upon the Chief Justice and the other that being only mortal men they should gratefully admire the argument of the man who had placed them on the bench. It is rather to their credit if they find his reasoning a little more persuasive and convincing than that of the "counsel on the other side," to whom their Honors were under no obligation whatever.

A friend of mine is about to claim a patent for the discovery of a new social force not mentioned in books of sociology or political economics, and which for want of a better description he calls the "Law of Limit and Overflow." By this phrase he means a law which limits the rich man's power to consume, and at the same time compels a share of his wealth to overflow upon the poor. No matter how multifold a millionaire he may be, he can eat and drink one ration only. Though he provide himself with a thousand suits of clothes he can wear but one suit at a time. He may, indeed, exact a ration of luxurious food, and quaff wines that cost their weight in gold. He may for a time indulge in all the licentious pleasures that appetite can crave, but as soon as nature finds out what he is doing, she either in angry indignation afflicts him with disease, or kindly kills him out of the way.

This overflow pours down from a hundred streams and fertilizes like the Nile, but I will mention only one of its methods now, a potent influence in England which does more to keep the peace than regiments of policemen. In London this law of overflow is an efficient antidote to revolution and disorder. Its visible form is manifested in the thousand hospitals and other institutions which pass under the name of "Charities," and which are supported by the voluntary contributions of rich men. These are "charities" in the best sense of the word. You may call those contributions restitutions if you like, a conscience fund, or anything you please, I am only speaking of their value as a social power, a preservative influence holding society together, and reconciling classes to each other. The greater part of this overflow is poured out in the lifetime of the givers, but some of it is posthumous, a benevolence bequeathed by will. One instance will serve as a specimen of hundreds, although the records of the probate court in England abound with like examples.

On the second of April there was proved in London the will of Mr. William Salter. His personal estate amounted to about \$1,200,000. To St. George's hospital he left \$100,000; to St. Thomas's hospital \$100,000; to one other hospital \$15,000; to seven others, \$10,000 each; to six others \$5,000 each, to two

others \$4,000, and a great many legacies to domestics and other people. Having left about one third of his estate to what may be called the "overflow" fund, he left the other two thirds to his family. Multiply this case by hundreds, as the English probate records permit us to do, and we can see how powerful must be the operation of this law of overflow, and how it acts like oil upon the waters of the stormy social sea. So regular and constant is this overflow that it has become a law of English life, which may be counted on with the certainty of rain.

There is another clause in Mr. Salter's will, which although outside the line of argument is worth notice. He directs that his horses Jem, Jack, Charlie, Bobby, and Cherry Pie, as soon as possible after his death shall be humanely and skillfully destroyed, and their near fore-legs produced thereafter to his executors. I have been a good deal puzzled to find a reason for this curious clause in the will, but I think I have the correct solution of the mystery. These horses were among the affectionate friends of Mr. Salter, and he feared that after his death they might be beaten or overworked, perhaps come down to ignominious labor in a sand cart, or to some other degradation in their old age. Fearing that they might come to poverty he preferred that they be "humanely and skillfully destroyed." Either that, or Mr. Salter believed that horses have souls, and continue their existence beyond the grave. In that belief he did not care to stay for several years in heaven without the society of his favorite horses Jem, Jack, Charlie, Bobby, and Cherry Pie. Let us hope that they are all enjoying themselves there together.

M. M. TRUMBULL.

NOTES.

The Western Unitarian conference is seriously at work conciliating Religion with Science. Several of the speakers emphasized amid the applause of an enthusiastic audience that true religion has nothing in common with supernaturalism. True religion must fall in line with the reformation begun by Theodore Parker, who gave his life's best years to rationalize Religion. We find "Christian" criticisms denouncing the Western Unitarian Conference for dropping the Fatherhood of God and retaining only the Brotherhood of Man. The progress of Western Unitarianism is maintained to be mere negation, an excision, the striking out from the definition of Unitarianism the central, deepest, and most fundamental idea of all noble religion—the God-idea. These critics seem incapable of discerning the new positive ideals in this movement. Is not a new God-idea, tenable from the standpoint of science, greater than all supernaturalism? Rational religion recognizes no dogmas, but such truths only as can be justified by scientific investigation. It wages no warfare against science and scientific discoveries. Is rational religion no positive ideal?

The old dogmatic Unitarianism appeared to me almost more irrational than any creed of the antiquated churches. If I have to believe in a Supernatural Deity, a great and all-transcending person who can whenever he pleases break through natural laws, I see not the slightest reason why I should not in addition believe in all the marvelous stories of the Old and New Testament. These old dogmatic Unitarians strain at gnats and swallow camels. They refuse supernaturalism at retail but they accept it wholesale. The Western Unitarian Conference has given up this ground altogether, and its members need have no fear of losing the fundamental ideal of all noble religion. On the contrary they strike the bottom ground of that religion which in time will become the Religion of Humanity.

As supplementary to the essays on the Origin of Language, we shall soon publish a series of articles by Mr. T. Bailey Saunders, of London, constituting a critical review of recent theories of the origin of reason.

The Open Court.

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REVELATION.

IN my childhood I was told that there were two kinds of divine revelation. God had revealed himself (1) in Nature, and (2) in the Scriptures. Neither revelation was easy to decipher and interpret, but God always aids the endeavors of the upright, and the one revelation would assist us in understanding the other.

There is, too, according to the catechisms, a third kind of revelation: the Conscience of Man. Man has an instinctive recognition of that which is right and that which is wrong, and this instinct is sometimes a most wonderful and accurate guide, although there are many cases in which it leads astray. Conscience, we are told, is the voice of God, and the behests of conscience we are bound to obey, although we must be on our guard lest conscience be perverted by errors and superstitions.

These three revelations of God must be one and the same. If they are true and reliable they must agree, and wherever they do not agree our interpretation of one of them, or of two, or of all them, is wrong. As a matter of fact, we find that the three conflict, and we must accordingly investigate which of the three is the most reliable.

The dogmatic Christian claims that the Bible is the most reliable; and in all religious matters the Bible must be considered as the ultimate authority. Yet, whatever precious doctrines the Bible may contain, it can be considered as divine only in so far as it is true, and God cannot proclaim one truth in nature, and another truth in the Scriptures. He cannot be one God to all the world, and another God to a few prophets. God might reveal himself more fully to those who are maturer in mind, whose souls are further advanced in moral and mental growth, for God reveals himself to the extent that we search for him, and are able to comprehend the truth. Yet the two revelations should never be contradictory. They might be different in degree, but not in kind.

Of the three divine revelations there is but one that is consistent, one that never contradicts itself, that has remained unchanged, and will remain so forever. That is the revelation of God in Nature. There is order in nature, and law rules supreme. All natural phenomena are in all their glorious variety so many

instances of the oneness that pervades nature, and among all the natural phenomena, the most wonderful revelation of God appears in man; and in that which is most human in man, in language, and in thought. Every truth is divine, every truth is a revelation, and every scripture thus inspired will prove useful in working out righteousness. Therefore we agree with the apostle when he says:

Every scripture inspired of God is also profitable for teaching, for reproof, for correction, for instruction, which is in righteousness: that the man of God may be complete, furnished completely unto every good work.—II. THIM., 3, 16, 17.

It is not the Bible alone which is a revelation of God, but the Vedas, the Zendavesta, Homer, the Koran, the Edda; Shakespeare, and Goethe; and Kant and Darwin, and all the scientists. All the scriptures, all the literatures of all people so far as they contain thoughts that are noble and elevating, and beautiful and true—they are all revelations of God. In so far as a book contains errors it is not divine, it is no revelation of God, whether it be incorporated in the biblical canon or not.

The Bible was considered by the old Hebrews in this light, for the Old Testament is nothing but a collection of the Hebrew literature up to a certain date. Had Goethe lived among the Jews at the time of David, and had the anachronism been possible that he had written his *Faust* at that time; Goethe's *Faust* would be one of the canonical books in the Bible of to-day.

Conscience, it is true, is a revelation of God; but what is conscience but the development of the ethical instinct in man.

Experience has taught man that certain acts that promise to be pleasant at first, will cause regret afterwards; that the injury done to others will not bring to him the benefit he expected, but may even entail harm which he never thought of. Experience will teach him that self-denial and unflinching love of truth, even where they appear very obnoxious, will in the end prove to be the best. Conscience accordingly is ultimately based upon experience, not only of ourselves, but of parents and teachers. It is partly an inherited tendency; partly it is based upon all the remembrances of our life from earliest childhood. The examples given us by beloved and respected persons,

by our elders and by our friends, are written in our souls and will consciously and unconsciously influence our actions. It is neither uncommon nor strange that the voice of man's conscience is often perverted, by bad examples and insufficient or wrong instruction. As the knowledge of the medicine man is the rude beginning of science; so is conscience a natural product which needs refinement and culture by methodical education.

The only direct and reliable revelation of God is to be found in the facts of nature; and all the other revelations in the Scriptures, and in conscience, are but parts of this one and only true revelation. They are true only in so far as they agree and represent this; and the truth of this can be revised again and again. The book of nature is open to every one, and in the places where to-day we understand its disclosures imperfectly, we can hope that to-morrow by more careful observations and closer investigations, we shall better comprehend its meaning.

Truth is the exactness with which the harmony of cosmic order is represented in the mind of a thinking being; truth is the mark of divine dignity in man, through truth and truthfulness we become children of God, and truth is the saviour of all evil.

THE NATURAL ORIGIN OF THE SUPERNATURAL.*

BY PROFESSOR F. MAX MÜLLER.

It was formerly supposed that there were only three forms of religion possible, *Polytheism*, *Monotheism*, and *Atheism*. But in the Veda, and elsewhere also, it has become necessary to distinguish Polytheism from a previous stage which may best be called *Henotheism*. What we mean by Polytheism is a belief in many gods, who, by the very fact that they are many, and stand side by side, are limited in their divine character. They generally form together a kind of Pantheon, and are mostly, though not always, represented as subject to a supreme God.

Polytheism, therefore, implies the admission of a number of beings who all claim a kind of equality, so far as their divine character is concerned, who are conceived in fact as members of one class, and whose divinity is consequently a limited divinity, or, if we hold that divinity cannot be limited, no true divinity at all. But there are clear traces of a totally different phase of religious thought in the Veda.

No doubt, the number of gods invoked in the hymns of the Rig Veda is very considerable, and in this sense the Vedic religion may be called polytheistic. In many hymns where different gods are invoked together, the conception of divinity shared by them all is as limited as in Homer. But there are other hymns in which the poet seems to know, for the time being,

of one single god only. That single god is to him the only god, and in the momentary vision of the poet his divinity is not limited by the thought of any other god. This phase of thought, this worship, not of many, nor of one only god, but of a single god, I call *Henotheism*, a name which has been accepted by the most competent authorities as representing an important phase in the development of religious ideas.

It may be that India, where social life was chiefly developed in families, clans, and village communities, favored the growth and permanence of this worship of single deities more than any other country; but, from a psychological point of view, it seems as if all polytheism must have passed through this previous phase, as if everywhere, whether consciously or unconsciously, the progress must have been from the single to the many, and finally to the one. But, apart from all theories, the fact remains that in the religious childhood of India, as represented to us in the hymns of the Veda, we can see this henotheistic tendency fully developed. We can see a poet, or a family, or a clan, or a village believing in this or that god as for the time and for certain purposes the only God, yet quite ready, under new circumstances, to invoke the help of another god who again stands supreme, or more correctly stands alone, before the mind of the suppliant as his only helper in distress.

It will be admitted that nothing of what is called supernatural, no miracles in the modern sense of that word, no superhuman revelation were required to account for the simple and perfectly intelligible evolution of the concept of deity. What should we give if in any realm of nature we could watch that wonderful process of evolution, of growth or development, so clearly as here in the realm of thought? If some students of physical science come to us and tell us of the great discovery of evolution in the nineteenth century, and express a hope that we also, we poor metaphysicians, and psychologists, and philologists should become evolutionists, one hardly knows what to say. What have we been doing all this time but trying to understand how things have become what they are, how by a few roots, language by an uninterrupted growth developed into the endless varieties, now scattered all over the world—how from a few simple concepts the infinitude of thought was evolved which represents the intellectual wealth of the world, and how philosophers, as distant from one another as Kant and Thales, are, nevertheless, held together by an unseen chain in the historical march that led them nearer and nearer to the truth.

Really, to be told, as we were lately by Professor Romanes in his 'Origin of Human Faculty,' that the idea that language was the result of natural growth, could not be appreciated in its full significance before

* From a Report in the London *Christian World*, copies of which were kindly sent us by Prof. Max Müller.

the advent of the general theory of evolution, that 'till the middle of the present century the possibility of language having been the result of a natural growth was not sufficiently recognized,' and that it was the same year that witnessed the publication of the "Origin of Species" (1859) which gave to science the first issue of Steintal's *Zeitschrift für Völkerpsychologie und Sprachwissenschaft*,¹ is enough to take away one's breath. I see that the sentences are very cautiously framed, but for all that they cannot but mislead. The idea of evolution was more fully recognized and more clearly defined by the students of language than it has ever been by the students of nature, and they certainly did not wait for the advent in 1859 before explaining what was meant by genealogical, what by morphological classification, what was meant by dialects, by families of speech, what was meant by the constant elimination of useless words, which is but another, a more correct name for natural selection.

If Professor Romanes says, 'Even Professor Max Müller insists that no student of the science of language can be anything but an evolutionist, for, wherever he looks, he sees nothing but evolution going on all around him,' what is the meaning of that *even*? Even before Professor Romanes joined the ranks of evolutionists, I had greeted in the warmest terms the discourses of Darwin, as a biologist, because they lent such strong support to the theories put forward long ago by comparative philologists, and thus enabled them to see many things far more clearly, by their analogies with his theories.

Unfortunately, Darwin had been misinformed as to the results obtained by the science of language, having consulted some personal friends whom he trusted, and who were not competent to give the necessary information. It was in the interest of the true theory of evolution, in support of true against false Darwinism, that I published my criticism of Darwin's views on language, not as an opponent of the theory of evolution. That theory has no stronger fortress than the science of language, of thought, and of religion. For it is here that evolution stands before us as a simple fact, and not, as is so often the case in nature, as a mere hope and desire. We have here no missing links, but one perfect and unbroken chain.

Many philosophers, many historians, many students of the evolution of the human mind, unassisted by any but the great natural miracles by which it finds itself surrounded from the first moments of its conscious life, might have reached the concept of gods, such as we find it in the ancient religions of the world, in what have often been called natural religions as distinct from supernatural religions. But they would demur if asked to admit that the highest concepts of God, such as we find it among the Jews, Christians,

and possibly among the Mohammedans, was within the reach of unassisted human reason. We need not inquire why they should have so strong a wish that it should be so, and why others should wish with the same intensity that it should not be so. If it can be shown that the highest and purest concept of deity has been the result of a natural and perfectly intelligible evolution, all we have to do is to study the facts which history has preserved to us, and then to draw our own conclusions. Let those who hold that the highest concept of deity is unattainable without a special revelation, put down those attributes of deity which they believe are outside the ken of natural religion, and if there remain any that cannot be matched, let us then freely admit that these were unattainable by man as placed in this world, though it is a world of unceasing miracle and of never-ending revelation.

There is one powerful prejudice against which all believers in evolution have to guard. When we see the last result of an evolution we are loth to identify it with its simple and often apparently very mean beginnings. When we see the mouth of the Thames, which can be as wild and as terrific as the ocean itself, we can hardly believe that it began with the few trickling rills on the south-eastern slope of the Cotswolds. When we look up to towering branches of an ancient oak-tree, we cannot realize how it should have sprung from one of those small decaying acorns that lie scattered round its roots. And when we admire the beauty of a full-grown man, we almost shrink from the idea that not many years ago that noblest work of nature was nothing but a plastic cell, undistinguishable, to our eyes at least, from any other cell that might in time grow into a dog or an ape.

It is the same with our words. Their original meaning is often so commonplace and so material that nothing but downright facts can force us to believe that, for instance, such abstract terms as to *perceive*, and to *conceive*, are derived from *capio*, to lay hands on a thing. But because *aspiration* and *inspiration* come from the same source as *respiration* and *perspiration*, they lose nothing of that sublime meaning with which in the course of time they have been invested. If, therefore, we should find that the highest and purest concept of divinity had slowly been elaborated out of the primitive material concept of fire, that would in no way lower the divine concept. On the contrary, it would only serve to impress upon our minds the same lesson which nature teaches us again and again, namely, that the highest achievements are often connected by a continuous growth with the meanest beginnings, and that we are not to call common or unclean what has been cleansed by the Spirit.

Can we ourselves form a much more sublime conception of the Deity than what we see the conception

of *Agni* to have become in the Veda? Of *Agni*, the fire, there is little, nay, there is nothing, left in that supreme god whose laws must be obeyed, and who can at the same time forgive those who have broken his laws, nay, who can promise to those who worship him eternal life. It is quite true that by the side of these sublime conceptions we find also the most homely and childish ideas entertained of *Agni* by some of the Vedic poets. But that is not now the question. There is an ebb and flow in all religions. We want to know the highest mark which the tide of Vedic religion has ever reached in order to understand what the human mind, left face to face with the natural revelation of this world, can achieve. Trusting to the fragments that have been preserved to us in the Veda, to the remains of the most childish as well as the most exalted thoughts, we may say that natural religion, or the natural faculties of man under the dominion of the natural impressions of the world around us, can lead, nay, has led, man step by step to a conception of deity which can hardly be surpassed by any of those well-known definitions of deity which so-called supernatural religions have hitherto claimed as their exclusive property. These are either facts or no facts, but if they are facts they should be accepted and inwardly digested in the same spirit in which St. Paul accepted and inwardly digested the facts that met his eyes when standing before the very altars of the heathen world: 'Whom ye ignorantly worship,' he said, 'him declare I unto you'—not a new god, not a god different in origin from their own, but the same god who had been ignorantly worshipped in the childhood of the world, who is ignorantly worshipped even now, but for whom the human heart and the human mind have always sought, in the bounds of their habitation, if haply they might feel after him and find him, though he be not far from every one of us.

The traditions of the Old Testament as finally collected by Ezra hardly allow us to doubt that a belief in one Supreme God, even if at first it was only a henotheistic and not yet a monotheistic belief, took possession of the leading spirits of the Jewish race at a very early time. All tradition assigns that belief in one God, the Most High, to Abraham. Abraham, though he did not deny the existence of the gods worshipped by the neighboring tribes, yet looked upon them as different from, and as decidedly inferior to, his own God. This monotheism was no doubt narrow. His God was the friend of Abraham, as Abraham was the friend of God. Yet the concept of God formed by Abraham was a concept that could grow and that did grow. Neither Moses, nor the prophets, nor Christ Himself, nor Mohammed had to introduce a new God. Their God was always called the God of Abraham, even when freed from all that was still local and nar-

row and superstitious in the faith of Abraham. But although Abraham may have attained at a very early time to his sublime conception of the one God, the Most High God, freed from the purely physical characteristics which adhere to the gods of other nations, we can see very clearly that in this sublime conception he stood almost alone, and that the gods of the Jews and of the Semitic nations in general had once been gods of nature, quite as much as the gods of India.

What is told of Elijah and of his vision of Mount Horeb is like an epitome of the whole growth of the Jewish religion. The best authorities on the religious antiquities of the Semitic peoples, and of the Jewish people in particular, have expressed their conviction that the physical characteristics of their principal god point to an original god of fire, taking fire in the same wide sense in which it was taken in India, not only as the fire on earth, but as the fire of heaven, the fire manifested in storm and lightning. In this way only, they think, can we account for the poetical phraseology still found in many places of the Old Testament.

I know full well that to some, any attempt to trace back the name and concept of Jehovah to the same hidden sources from which other nations derived their first intimation of deity, may seem almost sacrilegious. They forget the difference between the human concept of the deity and the deity itself, which is beyond the reach of all human concepts. But the historian reads deeper lessons in the growth of these human concepts, as they spring up everywhere in the minds of men who have been seekers after truth—seeking the Lord, if haply they might feel after Him and find Him—and when he can show the slow but healthy growth of the noblest and sublimest thoughts out of small and apparently insignificant beginnings, he rejoices as the laborer rejoices over his golden harvest; nay he often wonders which is more truly wonderful, the butterfly that soars up to heaven on its silvery wings, or the grub that hides within its mean chrysalis such marvelous possibilities.

I have tried to show you, chiefly from the evidence preserved to us in the hymns of the Rig-veda, how the human mind, by its natural, though at the same time most wonderful powers, can reach and did reach the highest conception of the godhead. I took my first illustration from fire. Nothing seems to us more natural than that the various manifestations of fire should have been marked and named by the earliest inhabitants of the world. Yet if we restricted the meaning of natural to whatever animals, or beings endowed with sense only, are capable of performing, we should have to call the naming of fire, achieved by man and by man alone, not a natural, but a supernatural, or, at all events, a *super-animal* act. Formerly it would hardly have been necessary to insist on this distinc-

tion. But at present, when philosophy seems chiefly to consist in ignoring the frontier lines that separate the animal kingdom from our own, it is necessary to show that there are certain limits to the mental faculty of mere animals.

Animals may be scared by fire and run away from it, but they will never name and conceive it. When we see our fire burning, and hear it crackling in the grate, nothing seems to us more homely, more natural; but try to think once more what the first appearance of fire must have been. When it came down from the sky as lightning, killing a man and setting his hut ablaze, surely there was a miracle if ever there was a miracle, a theophony if ever there was a theophony. And when, after a time, the beneficial aspects of fire had been discovered, when certain families had found out how to elicit fire from flints, or how to produce it by friction, the mystery remained as great as ever. It was a weird power, a strange apparition, a something totally inexplicable to the human understanding. Thus there remained in the fire from the first, even after it had been named, something unknown, something different from all ordinary and finite perceptions, something not natural, something unnatural, or as it was also called, something supernatural. If we once see this clearly and understand how the supernatural element was there from the beginning, though not yet disentangled from its natural surroundings, we can see now also how it was the same supernatural element that lent itself to that wonderful growth in the human mind which we watched in the hymns of the ancient poets of the Veda, so that in the end Agni—fire—after being stripped of all that was purely phenomenal, natural, and physical, stands before us, endowed with all those qualities which we reserve for the Supreme Being, and was adored as the creator and ruler of the world as omnipotent, omniscient, just, kind, and compassionate. In that state all his physical antecedents were forgotten. It was no longer the fire crackling on the hearth that was believed in as the creator of the world. It was the unknown agent, recognized from the first in that motion which we call fire, that had been raised to a divine dignity, though the old name of Agni remained as if to remind people of their first acquaintance with him, whom they called from the first the friend of man, 'the immortal among mortals.'

We are told that Agni, as soon as born, devoured his father and mother—an allusion to the fact that fire sticks were often destroyed by the flames they kindled—a statement startling enough to take its place among mythological stories. If such a story, instead of being told of Agni, were told of Angrias, another, but no longer an understood name of fire, we should have had at once one of those myths which have formed

such stumbling-blocks to Mr. Herbert Spencer and other students of ethnology. These philosophers wish to account for everything in the development of the human race rationally. They want to discover a reason for these unspeakable atrocities of which the gods and heroes even of such progressive races as the Indians, the Greeks, Romans, and Teutons are believed to have been guilty. Their way out of the difficulty is certainly very ingenious and very simple; but is it supported by any evidence? First of all, they tell us that they see no reason why such names as Fire, or Sun, or Dawn should not be accepted as names of real individuals who lived a long time ago. They prove from the London Post-Office Directory that even now some people are called Fire, Dawn, and Sun. As to the atrocities ascribed to these individuals, they recognize in them what they call survivals of an earlier savage and half brutal state, when the ancestors of the Hindus, Greeks, Romans, and Teutons were quite capable of eating their parents, like Agni, or Mr. Fire, or of eating their children, like Kronos, or Mr. Time. I am not exaggerating, I am only abbreviating, and therefore, perhaps, representing the theories of Mr. Herbert Spencer and other Euhemerists in a too naked and, therefore, in a less persuasive and attractive form. Of course, when we are carried off into pre-historic times, it is very difficult for us to prove a negative. We cannot prove that there never lived a Mr. Sun and a Miss Dawn, that this Mr. Sun never embraced Miss Dawn, and that she never fainted away or died in his embraces. There may have been a Mr. Fire, and he may have eaten his father and mother, and, as the Egyptians say, he may actually have died of indigestion. But, on the other hand, scholars and historians have a perfect right to say that it will be time to consider these theories when all other theories have failed, and that in the meantime the historical footprints of language ought not to be neglected, but should be interpreted as all other vestiges of creation have been interpreted.

What I wish to put clearly before you in this mythological saying about Agni is, that there are grains of reason in all the heap of unreason which we call mythology. The constituent elements of mythology, when we can still discover them, are always perfectly natural. Their supernatural appearance is the result of growth and decay, of fancy and fun, of misunderstanding; sometimes, though rarely, of a wilful perversion.

This is what comparative mythology teaches us. It depends on us to draw from it those practical lessons which comparative studies will always convey, if only they are carried out in a truly philosophical and comprehensive spirit. There are two prejudices, at all events, which a comparative study of the relig-

ions of the world, and of the inevitable corruptions of those religions may help to eradicate. The one is that the ancient dwellers on earth were so different from us that they can teach us nothing, that they cannot be judged by the same standards, and that even if they say the same thing they do not mean the same thing. The second prejudice, prevalent more particularly among a certain class of scholars, is that if poets and prophets, belonging to different countries, say the same thing, they must have borrowed it one from the other. With regard to this second prejudice, where is there any excuse for it? If there is a thought in the Veda it has grown up naturally and intelligibly, as I tried to show in the case of Agni. If we find the same development, or the same final result elsewhere also, as, for instance, in Babylon, why should we say that Babylon has borrowed from India or India from Babylon? Surely what was possible in one country was possible in another also, what was intelligible in India is intelligible in Babylon also.

When there is a real historical intercourse between two nations in antiquity, that intercourse cannot easily be mistaken. For instance, the very name of *alphabet* proves better than anything else that the Phoenicians were at one time the schoolmasters of the Greeks. But when, as in the case of the Veda, there is no trace, so far as we know at present, of any foreign influence, whether Semitic or Egyptian, why should we look to Babylon, Nineveh, or Egypt and China, for the antecedents of what shows to us its perfect natural development on Indian soil?

I know there are coincidences, sometimes very startling coincidences, between the religion of the Vedas and those of other races. There are startling coincidences, as you have often heard of late, between Buddhism and Christianity. But to the scholar these coincidences are nothing as compared with the enormous dissimilarities between these religions. If I have tried to show you how the human mind, unassisted by anything but the miraculous revelation of nature, arrived in India, from the concept of fire at the highest concept of deity, my object was to show, by one instance that could not be gainsaid, that such a process was not possible, but was real.

That is the only answer which the scholar can give to those who hold, for some reason which they have never explained, that it is impossible for unassisted human reason to arrive at the idea of God.

THE ETHICAL IMPORT OF DARWINISM.

BY L. J. VANCE.

SEVERAL chapters in Professor Schurman's book re-open a discussion which for a short time has been in repose. What constitutes the science of ethics?

In other words, Is there a scientific basis for morals? Again, What is the moral sense or conscience of mankind? Is it supernatural and inscrutable, and hence incapable of scientific analysis? Or, is it a natural and necessary product of human evolution, and consequently capable of being accounted for (so far as we can "account" for anything) by the doctrine of derivation, or Darwinism? These are some of the questions debated between what we may call the "intuitive," and the "derivative" school of morals.

In the preface, the writer of the present volume loudly proclaims his acceptance of the results of evolutionary science in the domain of matter and in the domain of life. It seems to me that Professor Schurman thus seeks to disarm a very obvious kind of criticism in advance. For, in the next sentence he informs us that, it has been "pretended" that the doctrine of evolution invests ethics with a *new* scientific character. Then follows a *resumé* of the different chapters of the book in which the conclusion is reached that, Darwinian ethics is a "piece" of speculation. And it is near the close of the preface, that the professor makes a most eloquent plea for what he calls "a popular style."^{*}

At this point we wish to enter our most emphatic protest against the use, in ethical discussion of the so-called 'popular style.' If, as the writer tells us (p. 20) the first principles of ethics must be axiomatic, how, then, are they to be made 'popular'? Again, There are axioms of morality, which, try as professors will, we simply have to recur to and admit that they have been clearly defined and stated before us. As a matter of fact, the first principles of ethics could no more be 'popular' than could the propositions of Euclid. It is well enough to talk about a "popular style" when you mean the avoidance of obscure and technical phraseology, or the employment of a clear and lucid style calculated to instruct the popular mind.

But we need not go far to discover Professor Schurman's true meaning. With all the skill of a practised pleader the writer endeavors to enlist the sympathies of his readers by the use of a 'popular style.' Thus, we are told in the beginning that, Darwinian ethics is "purely imaginary" (p. 27 and p. 179); that, if the evolutionary moralist would "brood intensely" at the fires of the human heart (p. 31) ethics would not be a "reproach"; that "the spiritual leaders" of our generation by passing their "guesses" for hypotheses have brought ethics to the "present deplorable condition" (p. 36). Hence, we need not be surprised later on to hear that, these spiritual leaders of our generation "take a grossly mechanical view of human nature" (p. 146). And everywhere, the evo-

^{*} "The Ethical Import of Darwinism," by J. G. Schurman, Professor of Philosophy in Cornell University, New York, 1887.

lutionary scheme of ethics is spoken of, either as 'materialistic' or as 'mechanical.'

This, then, is Professor Schurman's idea of a 'popular style.' Now, to call Mr. Darwin's theory or doctrine 'mechanical' may indeed be popular, but every student well knows that such phraseology is usually an open confession of the fact that your opponent's views are highly objectionable to you. The phrases 'materialistic' and 'mechanical' are what Bentham called "question-begging appellatives." They simply serve to prejudge the very issue in hand. And if this is the writers intention, we leave it to the Professor of moral philosophy in Cornell to pass upon its ethical worth and character.

In the first chapter, Professor Schurman raises the question, What constitutes a Science? But I do not find that he has at any time or place answered his own inquiry. After trying to discover whether ethics can be 'likened' to logic, mathematics, or the natural sciences we come to the following:

"If it (ethics) is ever to rise above the analytic procedure of logic, it can only be by becoming one of the historical sciences. Given the earliest morality of which we have any written record, to trace from it through progressive stages the morality of to-day; that is the problem, and the only problem which can fall to a truly *scientific* ethics. The discovery of these historical sequences constitutes the peculiarity of the science, which, like every other, presupposes observation, analysis, and classification" (p. 31).

This discovery, about which Professor Schurman makes so much ado, has long been a commonplace among the followers of Mr. Darwin in the study of ethics. Indeed, we remember so able and so acute a critic as Mr. Malloch finding fault with evolutionary moralists because they time and time again insisted upon ethics becoming a branch of human history.* As Leslie Stephen tersely expressed it, "if ethics is to become a science, it must rest on those facts and truths which, when discovered and established would furnish the basis of the science of sociology."

It is admitted, then, on every hand, that ethics should be put upon a scientific basis? Now, what is a scientific basis? "By science," says Huxley, "I understand all knowledge which rests upon evidence and reasoning of a like character to that which claims our assent to an ordinary scientific proposition." Hence, it seems to me that, if evolutionary moralists are able to make good their claim that their ethics rests upon valid evidence and sound reasoning, such ethics must take its place as a part of science.

The relation of science to morality should now become obvious. By scientific thought, said the late Prof. Kingdon Clifford, we mean the application of

past experiences to new circumstances by means of an observed order of events. The uniform course of human action and nature is our best and highest warrant for all moral deductions from human experiences, either past or present. The great truth seems to be, that all our practical rules of human conduct have been severely Baconian. They have proceeded on the ground that from a certain conjunction of antecedents there always come certain consequences. In other words, men living together in any kind of organized society have deduced *a priori* from wide experiences and numberless observations those rules of human conduct which they found to be either injurious or beneficial to their social well-being. As a matter of fact, we find that all our great maxims of morality actually rest on a sound inductive basis. Thus it is that many of our so called moral "intuitions" were once only assumptions, afterwards verified by long-continued and wholesome experience.

But says Professor Schurman, you make these "gratuitous" assumptions. "In the first place," says he, "evolutionary ethics takes for granted the derivative character of morality," (p. 133). Certainly it does, we unhesitatingly reply, and we add, but not without good reasons. If evolutionists make a "gratuitous" assumption the burden is plainly upon Prof. Schurman to prove it. By simply calling your opponents' facts and arguments, assumptions, the Professor glides very easily over the whole difficulty.

Now the assumption of the evolutionary moralists on the derivative character of morality is simply this: If (as they say) moral qualities were gradually evolved, we should naturally look for some instances in which they are not fully evolved, and consequently rudimentary, partial, or imperfect. Just such instances we do find,—as, for example, among the many well-recorded cases of intelligent animals, and among the many authenticated accounts of morality of savages given by Lubbock, Tylor, and Morgan. We see moral qualities in the course of development in children, idiots, and the feeble-minded. Above all, instances of the mental training or education of the moral sense, whether in the individual or in the race, are just so many instances of the imperfection of the moral sense. In truth, so long as the moral sense or conscience is dependent upon the intellect to give just and proper commands, just so long it is incomplete, partial, and imperfect.

In the second place, says Prof. Schurman, "the current expositors of evolutionary ethics have made the radical assumption that moral laws are not categorical imperatives which command unconditionally, but hypothetical imperatives which prescribe means to the attainment of some end, they cannot escape the problem of determining wherein consists that ulti-

* See the *Nineteenth Century* for 1877.

mate end, conduciveness to which alone gives morality its worth and obligation," (p. 135.) And hence we find him combatting those moralists who have selected as an ethical end,—pleasure; throwing the shafts of sarcasm at those utilitarians who make man "merely a pleasure-seeking animal;" hurling the Carlylese epithets of 'pigs-wash,' and 'swines trough,' at Mr. Spencer because the latter has said that "the good is universally the pleasurable." Now, it seems to us that Prof. Schurman is doing either one of two things—setting up a man of straw labelled "Utilitarian," to be knocked down at his own sweet pleasure—in which case no one will dispute his easily-acquired superiority—or else he is only fighting an imaginary Darwinist of some so-called "school"—in which case we agree with Prof. Schurman that "the sure-footed investigator here roams at random over an impalpable void that offers no foothold," (p. 178.)

Again, there could be no greater mistake than to suppose that Darwinism "reduces morality to pleasure." The ethical import of Darwinism is not of a rose-pink or Della-Cruscan character. The followers of Mr. Darwin in the field of ethics indignantly repudiate the Hebrew prophets' assertion that good can ever be attained by eating "butter and honey." (Isiah VII, 16). That not only pain but punishment followed a breach of the moral law, as surely as fire burns, is the stern and salutary teaching of Darwinism. And in this respect, it seems to me that, the revolutionists have only given scientific form to the ethical doctrine so strongly insisted upon by the Stoics. In a remarkable essay on *The Delay of Divine Justice*, Plutarch thus states the problem: "Were the impious man to behold after his death, not his statutes overthrown, or any honor received by him cancelled,—but his children, his family, or kindred, his city suffering great misfortune and punishment on his account—he would not choose again to be depraved and profligate—no, not even to obtain honors like those of Zeus," (Peabody's translation, p. 51). Hence, the followers of Mr. Darwin go so far as to admit good has more often been attained in the past by pain and suffering than by pleasure and sensuality. Yet they do not hesitate to declare with the poet Browning—"All's love, yet all's law." For, it was out of the cruel and bitter struggle for existence great moral laws have been evolved; that the meek have now become the inheritors of the earth.

It is, however, when Prof. Schurman comes to his third "assumption" that his treatment of the ethical meaning of Darwinism becomes obviously narrow and unfair. "I now come," he says, "to a third characteristic assumption of current evolutionary ethics—the fortuitous origin of morality through a process purely mechanical, this must, I think, be regarded as the

fundamental tenet of the school," (p. 140). The rest of the chapter is an attempt to show that a mechanical origin of morality is the fundamental assumption of evolutionary ethics.

When, however, Prof. Schurman in his fifth chapter comes to examine Mr. Darwin's account of the subject of the origin of the moral sense, he takes quite an entirely different task. As is well known, Mr. Darwin endeavored to answer these questions: "Why should a man feel that he ought to obey one instinctive desire rather than another. Why does he regret having stolen food from hunger?" It is equally well known that Darwin in his "Descent of Man" put forward his famous answer to these questions with "characteristic" modesty. Not so with Prof. Schurman.

"This problem," he confidently declares, "presents no particular difficulty to anybody not pledged to a system of derivative morality. The answer is simple enough. Man perceives some desires to be higher or nobler than others, he recognizes an obligation to admit the better and exclude the worse, and he cannot defy his authority without incurring the penalty of remorse. Admit that there is a scale of worth and authority among our impulses to conduct, as well as an order of intensity, and the whole difficulty vanishes. This however, is what our current evolutionary school . . . has persistently declined to do." (p. 190). Whereupon he triumphantly asks at the close of his argument, "What is there to carry the non-moral possessor over into the status of a moral agent?" (p. 194). Or, again, "What marks of virtue, e. g., do you find in the shape or size, or cubic capacity of the Neanderthal skull." And then follows in italics, "There is no fossil pre-human morality." No; neither is there any fossil pre-human religion, science, or art. Now because the evolutionist cannot trace, step by step, the development of the moral sense, is that sufficient reason for denying that the moral qualities could ever have been evolved? It is in such an ethical argument as this that our ignorance is made to play the part of knowledge. I am inclined to think that Prof. Schurman indicates an answer to his own argument when he says that evolutionary science warrants the belief that non-moral beings existed on our globe long before the appearance of the only moral being we know,—man, (p. 146). I would fain believe, with Dr. George J. Romanes, that Prof. Schurman is only playing in the hands of those who take a "mechanical" view of morals, when he argues that "an ideal of action may be affiliated to Darwinism as readily as any other." (*Nature*, Jan. 26.)

Hence it is, I suppose, that Prof. Schurman urges that evolutionary science, and particularly Darwinism "does not necessitate a new system of morals" (p. 160). I am not aware that either Mr. Darwin or Mr. Spencer

ever insisted that they were finding any *new* system or basis for morals. On the contrary, as Haeckel well said in his celebrated Munich address: "The ethics of evolution does not need to seek for new principles. We have only to refer to their true basis the ancient precepts of duty. . . . We look rather for the establishment of natural morals based on the foundation of natural laws."

[TO BE CONCLUDED.]

SOUL-LIFE AND THE PRESERVATION OF FORM.

MAN is not the sum of the material particles of which at any given moment he consists. Every man is a special form that has taken shape in matter; and the material particles are not the really essential elements that make him what he is. A man might have eaten the meat intended for his dog, and the dog might have gotten the piece that his master ate. And so, too, the dog might have breathed the air that the man breathed, and *vice versa*. But that would have made no difference in the assimilation by each of the material particles in question. In man's stomach they go through the process of being changed into human flesh and blood, while that nutriment on which an animal has fed will become part of the animal.

This appears wonderful, and yet the principle obviously accords with the simple law of mechanics. Materials can be shaped, mechanically, into certain forms. The shape of a bronze figure depends upon the mould into which the metal is poured, and the products of a machine, be they nails, or pins, or needles, or books, or newspapers, or hardware, depend upon the mechanism of the machine. The form of the machine produces a special form of movement, for the movement of the cogs and wheels will follow the grooves and other mechanical contrivances; and upon the form of the movements necessarily the form of the product depends.

The process of changing food into flesh and blood is immeasurably more complicated than the work of a machine, yet the basis of mechanical law is the same in both. The difference of form in the product can depend solely upon the difference of the mechanisms. In the living mechanisms of organized substances, in plants, in animals and in man, we can, with the microscopical methods at our disposal, recognize the rudest and roughest features only of the mechanical differences in the innumerable parts which contribute to shape the sap of trees and the blood of animals. And these differences of form are the problems of scientific investigation. We can appreciate the differences in the result, (say for instance between an animal brain and a human brain,) we know also much about the conditions which produced these different results, yet we know little about the mechanical details of or-

ganisms, i. e., *how* the living machines of animals and plants assimilate food. But we have sufficient evidence to believe, that the process is in full agreement with mechanical laws, and that the problem is merely a problem of form.

Man's soul does not consist of matter; nor can it be a substance like matter, such as are fluids or gaseous and ether-like substances. Conceptions, that materialize the soul, are the materialistic views of spiritualists. It is not matter which makes of us that which we are, it is not substance, but form; and the formation of a man's life does not commence with his birth, nor does it end with his death.

Our material existence is constantly changing, and yet we remain the same persons to-day that we were yesterday. How is this? It is because man's life consists not of his material presence alone, but of his formal being, and his formal being shows relatively more continuity than his material existence. There is a law of the conservation of matter and energy, but there is another law of no less importance, which I will call the law of the preservation of form.

We call it preservation and not conservation, in order to mark the difference between the two laws. Matter and energy are indestructible, but all special forms are destructible, they are not conserved in their kind or amount. Yet they are preserved; they remain as they are according to the law of inertia until changes take place which do not destroy the present forms, but which alter them in the measure that special causes affect them. The old form is in a certain sense fully preserved even in a most radical change, for the old form is one of the elements in the change. It may be destroyed in all that gives value to it; its trace can become infinitesimal; yet being one of the factors in causation it can never be blotted out entirely.

The changeability of form constitutes what we call evolution. Evolution indeed means 'change of form according to certain laws.' Laws of form are geometrically demonstrable, and laws of the changes of form can be ultimately accounted for with mathematical precision.

In Dr. Johannes Ranke's most excellent work on anthropology* man and mankind are compared to a wave. A wave appears to the eye as a material unit. Its form travels along on the surface of the water, ever one and the same; but its substance is constantly changing. It is the mere expression of a number of rhythmical motions, and there are not two consecutive moments in which the constituent particles are the same. The drops which one moment are seized by the approaching wave, rise in the next to its crest and then glide gently back on the other side of the billow to the quiet surface of the ocean.

* Dr. Johannes Ranke: *Der Mensch*, p. 1.

The body of the wave is formed by the particles of water which enter into and pass through the wave. Similarly the human body, like a wave of water, is a certain form of rhythmical motions. Material elements, the air we breathe, the food we take, are seized upon, only to pass through and leave the body, whose form continues and appears to the uninitiated as the same material unit.

The same simile is true of mankind as a whole. The activity of the human race, as we observe it in history, rolls onward like a huge wave over the surface of the habitable globe. It incorporates and transforms the organic materials in its way only to give them back to the ocean of unorganized material existence from which they were taken. In the onward course of human evolution, the generations of which it consists rise into existence and sink back as the wave of humanity rolls on. The generation of to-day is different from the generations of former centuries, but humanity is one contiguous whole throughout all of them. It began with the origin of life on our planet, and its onward movement will continue as long as the organic substance of the earth can afford sufficient material to renew its form.

In all the material changes that organized bodies undergo, there is a preservation of their forms. An impression once made will remain, as a wound once received will preserve the scar. The new formation of the ever changing tissues will be made in the shape which they possess. Scars will in time become invisible, but they will never be effaced entirely. A sensation that has been once perceived will leave some trace in the tissues of the living brain, and the form of this trace will not be effaced amid the change of matter that the nervous substance constantly undergoes. It will be preserved; and as soon as, through the stimulus of nervous action, it is again excited, the sensation will be revived, although it will be weaker than it was when it first impressed itself. If the sensation be strong enough it will be felt again, and may be accompanied more or less intensely with consciousness. Thus the preservation of form accounts for the continuity of memory.

The identity of memory-structures does not depend upon an identity of the very same material particles, but upon an identity of form in tissues of the same kind. Nervous substance is the most unstable, and its material changes are the most rapid of all. It is therefore all but impossible that in the constant flux of matter, the continuance of memory should be attached to the material particles. It is a continuance of form only, just as a fountain preserves its form during the uninterrupted change of the water. The fountain-jet remains the same and we consider it in different moments as the same not otherwise than

ourselves, because in the flux of its material constituents, its form remains constant.

The solution of the problem of memory, accordingly, solves the problem of the personality of man also. The personality of man and the continuity of his soul-life, can find their explanation only in the preservation of all the living forms of his organism.

Supposing that all motions of material elements are accompanied by elements of feeling, we then understand how feeling, as a special combination of its elements under special circumstances can originate in organized substance. Further, we understand how from simple and dim feelings specialized sensations evolve as a kind of articulated feeling, and these sensations naturally become representatives of the objects which occasion them. When we notice in a number of sensations their common features, and observe their differences, we begin to think, and we learn to classify things around us under abstract terms. Thus we understand how the soul of man with its wonderful structures rises into existence, building one tier above the other, and culminating in an organ of co-ordination which makes a comparison and unification of all the elements of soul-life possible.

Man's soul was formed in the course of the evolution of the human race, by the reactions upon the external influences of the surrounding world, and the present man is the outcome of the entire activity of his ancestors. Thus every one of us can say with Christ: "Before Abraham was, I am." Every one of us began his life with the beginning of all life upon earth. We are the generation in which the huge billow of human life now culminates. We, ourselves, are that billow, our real self, our spiritual existence will continue to progress in that great wave.

Our existence after death will not merely be a dissolution into the All, where all individual features of our spiritual existence are destroyed. Our existence after death will be a continuance of our individual spirituality, a continuance of our thoughts and ideals. As sure as the law of cause and effect is true, so sure is the continuance of soul-life even after the death of the individual according to the law of the preservation of form.

P. C.

TO THE POET-LAUREATE. *

BY LOUIS BELROSE, JR.

"Cursed be the social lies that warp us from the living truth!"

—LOCKESLEY HALL.

"Let us hush this cry of forward till ten thousand years are gone!"

Let us stop the stars that, rising, light the night and bring the dawn!

What! is this our poet's counsel, he that urged us on the way?
Must we stop because the wolves are howling at an ass's bray?

* Copyrighted, 1887.

Shall we turn because the million, menacing with fire and sword,
Curse the cleaner hand we give them, bidding backward? No,
my Lord!

You, yourself, have called the present "fatal daughter of the
past";
How with all that men were learning, how could that old England
last?

"Science moves, but slowly," said you; science moves and turns
not back;
Though we love or though we hate it, what she wills must clear
the track.

Those were pleasant days you tell of, we have lived them o'er with
you;
Dreamt about the past and future; now the time has come to do.
Those were days for gentle poets' sweet conceits and lady rhymes.
Now we need the man that, singing, fights the battle of the times.
Æschylus beat back the Persian from the plain of Marathon,
Brave Saavedra* fought the Moslem at Lepanto with Don John.
Sidney fell to save an army, fell, but left the word divine
Spoken to the wounded soldier—"Drink, thy need is more than
mine."

Perfect Sidney! Hang the motto where the gilded dolts may see
How this gentleman demeaned him; he was "English" as could
be.

Hang it where the curse is working, cursed greed of gain and gold;
Markets, Senates, Courts of Justice where men's souls are bought
and sold.

Hang it where the public press, in sweating for the golden prize,
Reeks with every stench on earth, and makes a lie ten thousand
lies.

Hang it large above the pulpit where the priest on bended knee
Smiles upon his chosen flock and counts the millions he can see.
Well we know the time's corruption, deeply feel the burning shame,
Well we know the cure is forward; let the cry be still the same.

When the man puts off his childhood, feels him free, and falls
from grace,
Can we fright him back to virtue with a shroud and painted face?

Let us for a man's disorder find and use a man's restraint;
Though we fail in reformation, still we save our sheets and paint.

Vines upon a leaning tower, tendrils of the heart, had grown
Till the living plant became as portion of the lifeless stone.

Crushed, the clinging vine lies prostrate; guide is gone from sea
and land;
For the tower was a beacon, but it stood upon the sand.

Raised again, but rock on rock, about the naked wall shall spring
Other vines to clothe in beauty, where the nesting birds may sing.

Men have lost the faith that led them, led with love or led with
fear;
Some are weeping by the wayside, some have turned to scoff and
jeer.

Many who were bribed to virtue lack the sense of wrong and right,
More but need the common purpose that would arm the just with
might.

Shall we waste divided power while the hosts of anarchy greed,
Join to wreck our fair dominion with the hordes of anarchy need?

* Cervantes-Saavedra.

Let us raise on high the standard of a faith that changing time
Can but strengthen, broaden, deepen as it spreads from clime to
clime.

Faith in all the facts of Nature, facts the same for one and all,
Facts before which all men's reason needs must bow in helpless
thrall.

Though the rebel brute within us writhe in anguish at the sight,
Fact is Lord of Earth and Heaven, fact is truth, and truth is right.

Science, sifting less from greater, out of all shall form a creed
Ever growing with our knowledge, ever helping in our need.

But we'll change this name of science since the word has given
offense;

Let us call it what it should be—simply ordered common sense.

Patience! While the mind will ever marvel most when truth is
new,
Only time's unrivaled teaching brings the heart to love the true.

Hopes that hung upon a dream are vanishing, and now we weep.
Look! the glorious Sun is shining; shall we turn again to sleep?

Can we turn with all the splendor of the morning in the skies?
Let us leave our dreams with darkness; let us wake and let us rise.

With the hope that comes of courage, casting vain hopes away,
With the strength of resolution, let us out and face the day.

One in will, with force united, let us help our Mother-Earth
Feed and clothe her friendless children; surely here is toil of
worth.

Food and raiment for the body, all that needs to keep them whole,
But with these things not contented, let us feed and clothe the
soul;

Fill the mind with all the vastness hidden by the noon-day light,
Fill the heart with love for all that wanders with us in the night.

Till the something in the flower, till the something in the stone
Shall become as love within them—beating hearts that beat our
own.

Not so changed, illustrious Master, not so changed in all are we;
Still the grateful heart remembers; witness this our love for thee.

Courage, aye, and faith, O Poet! Still when first the warm wind
blows

Little birds shall nest in England, hedges bloom and bear the
rose;

England still has men and maidens fit for love and firm in need;
England still may find salvation though she lose both crown and
creed.

CORRESPONDENCE.

THE ETHICAL PROBLEM.

To the Editor of *The Open Court*:—

I HAVE been attracted by your article in No. 140, (May 1,
1890) of *The Open Court*, on "The basis of Ethics and the Ethical
movement." I am a member of the Society for Ethical Culture
of this city, and yesterday heard Professor Adler attempt to
answer the criticisms of your Journal, the *Nation*, and Mr. Abbot,
using substantially the arguments you attribute to him; that our
duty is, *do what is conceived to be the right, by the best class of
the community in which we live, and trust that in leading such a
life we may attain natures that will give us an insight into the laws
of morality or ethics; the answer as you suggest is not satisfactory
in that it is applicable to the advancement of any end, and to each*

one of the community in which he lives, e. g., a monk in a convent, may have special ends antagonistic to the general good.

Does not a preliminary question need solution? Is any action either good or bad except, as it affects, directly or indirectly others? If this relation to others necessarily enters into our concept of a moral action, then is not the basis of all morality a mathematical calculation of the effects of a particular act, by which we can determine whether its benefit to others will be greater than its injury, and the action be classed as good or bad, by the result being plus or minus from a state of inaction. By benefiting others I mean the harmonious development of their social qualities.

RAPHAEL J. MOSES, JR.

NEW YORK, May 12, 1890.

THE "WHY" OF THE MORAL OUGHT.

To the Editor of *The Open Court* :—

YOUR recent article on the Basis of Ethics recalls to my mind Comte's law of the three stages. Dogmatic religion no longer sufficing, does not the error of our ethical friends (if it be an error not to clearly formulate their definition of what the Ethical Movement is) consist in still lingering in the transitoral metaphysical regime? If such basis, the theological having been abandoned, is to be sought, it must be scientific.

To establish a scientific basis of morals the historical method, rather than one of pure introspection, must be adopted. We only correctly know man as he is by the study of mankind, and that in all phases of social evolution. From the psychology of peoples to the first dim concept of the Tribal Self the data must be gathered. One illustration will suffice. Why is theft wrong? We clearly realize that social growth would have been impossible where stealing received the same approval as abstention from it. Clearly, what in its very nature disintegrated growth could not promote it. Nor does the typical case of the Spartans invalidate the statement, for even then law formulated the moral ought.

But behind this, as underlying every social relation, there is a broader generalization, or law, for in nature law is but generalization of accumulated experience. Without entering into any discussion whether in studying the psychological life of a race, "the national individual," this growth has been conscious or unconscious, we have at least reached a period where we may formulate the "why" in the above instance as the law of equal freedom. Further, all study of the psychological evolution of the social organism will show that ethics have become more clearly formulated *pari passu* with the recognition of more equal freedom. Though our theologic friends may not be disposed to grant this, I think it still remains true that their own definition of the moral command, Thou shalt not steal, has a far wider scope of application than with their grandfathers; e. g., in its application to slavery.

But if our broadest generalization is the law of equal freedom, in that what is right has ever been "selected" by social expediency, and has ever underlain, or governed (for in this case to underlie is to govern), equitable relations, two conclusions follow: 1. Right is ever relative and determined by natural selection, i. e., it not only persists but becomes organic as the moral ought in social life. While the basis is thus shifted from the theological regime, in becoming scientific, it is rendered positive rather than dogmatic. In the species heredity being what personal identity is for the individual, it results that what is morally expedient will persist as the moral ought; in other words, right becomes adaptation to environment, said adaptation, or right, being violated in so far as equal freedom is curtailed.

2. Ethical culture becoming scientific rather than metempirical, based on social experience rather than personal introspection, its progress lies in the study of what still restricts equal freedom, i. e., equal opportunity to unequal capacities. Leaving the cari-

fied atmosphere of metaphysical table-lands for the fertile bottoms where men delve and toil, they may find in economics fit ground for exploitation. The ethics of rent and interest must be considered, for however expedient they may be for the furtherance of ethical culture, if they are of the nature of privileges, artificial rather than normal, and involving corresponding restriction of equal freedom, or opportunity, they cease to be expedient for the ethical growth of "the national individual." And in seeking the basis of ethics if they defend rent and interest as consistent with the moral ought, they must seek to square it with the law of equal freedom, or deny its ethical importance. If they accept the law of equal freedom and pursue their inquiries into the ethical rather than the temporary requirements of social relations, seeking the "ought" rather than an apology, they may become equally perplexed lest their feet are logically directed to, and they unawares find themselves in, the camp of the Anarchists!

CHICAGO, ILL.

DYER D. LUM.

ASSISTANCE WANTED FOR PSYCHOLOGICAL STATISTICS.

To the Editor of *The Open Court* :—

MAY I ask for the publicity of your pages to aid me in procuring co-operation in a scientific investigation for which I am responsible? I refer to the *Census of Hallucinations*, which was begun several years ago by the "Society for Psychical Research," and of which the International Congress of Experimental Psychology at Paris, last summer, assumed the future responsibility, naming a committee in each country to carry on the work.

The object of the inquiry is twofold: 1st, to get a mass of facts about hallucinations which may serve as a basis for a scientific study of these phenomena; and 2nd, to ascertain approximately the proportion of persons who have had such experiences. Until the average frequency of hallucinations in the community is known, it can never be decided whether the so-called "veridical" hallucinations (visions or other "warnings" of death, etc., of people at a distance) which are so frequently reported, are accidental coincidences or something more.

Some 8,000 or more persons in England, France, and the United States have already returned answers to the question which heads the census sheets, and which runs as follows:—

"Have you ever, when completely awake, had a vivid impression of seeing or being touched by a living being or inanimate object, or of hearing a voice; which impression, so far as you could discover, was not due to any external physical cause?"

The "Congress" hopes that at its next meeting, in England in 1892, as many as 50,000 answers may have been collected. It is obvious that for the purely statistical inquiry, the answer "No" is as important as the answer "Yes."

I have been appointed to superintend the Census in America, and I most earnestly bespeak the co-operation of any among your readers who may be actively interested in the subject. It is clear that very many volunteer canvassers will be needed to secure success. Each census blank contains instructions to the collector and places for twenty-five names; and special blanks for the "Yes" cases are furnished in addition. I shall be most happy to supply these blanks to any one who will be good enough to make application for them to

Yours truly,

Wm. James,

CAMBRIDGE, MASS.

Professor, Harvard University.

BOOK REVIEWS.

Die Darwinische Theorie von der Entstehung und Umwandlung der Lebewelt. Ihre Anwendung auf den Menschen, ihr Verhältnis zur Lehre vom Fortschritt, etc., etc. By Prof. Dr. Ludwig Büchner. Leipzig: Theodor Thomas. Price, 5 Marks.

This is the fifth, enlarged and revised edition of Prof. Dr. Büchner's popular lectures upon the Darwinian theory. They were originally delivered in the winter of 1866-67 in Offenbach and Mannheim, but in their present form embody the results of the investigations of scientists up to the date of publication. In this incorporation of new results Prof. Büchner has been accurate and conscientious; thus, we note, for instance, the discussion of the researches of Weismann, published as recently as 1888 (an exposition of which appeared last summer in the columns of *The Open Court*). The extent of the revision and the scope of enlargement may also be judged from the fact that the first lecture, originally delivered say within an hour and a half or two hours, now takes up some *one hundred and nine pages*. Prof. Büchner writes in a graceful and picturesque style, that makes the reading of his work a pleasure; history and philosophy are presented in a way that well accords with the purpose of the work. The last two lectures are devoted to an exposition of the principles of the philosophy of monistic materialism, or *Wirklichkeits-Philosophie*, as Prof. Büchner would prefer to call it. This materialism, as our readers know, is not, as the old conception of it was, a system, but a philosophic view of life that seeks to discover and logically arrange the unitary principles of the world of nature, wherein force *as well as* matter is a fundamental and immanent principle. From the day of the ascendancy of this doctrine, says Prof. Büchner, will date the renaissance of philosophy. The book is supplied with a good index. μρρκ.

Balzac's Philosophical Novels. Two volumes: (1) Louis Lambert, Facino Cane, Gamba; (2) Seraphita, Jesus Christ in Flanders, The Exiles. Boston: Roberts Brothers. Price \$1.50 a volume.

It is a laudable work that the Messrs. Roberts have undertaken—this English edition of the *Comédie Humaine*. The translation, done by Miss Katherine Prescott Wormeley, is forceful and elegant; the philosophical introductions, supplied by Mr. George Frederic Parsons, are exhaustive; the typography and presswork, the French style of binding add to form a series of handsome volumes. This superior edition of Balzac is beyond question the one to be recommended to the English reader.

"It is not possible to classify Balzac's philosophy," says Mr. Parsons. "The curious student will find it reminiscent of many systems of thought. From Plato to Proclus, from Proclus to Hegel, he ranged freely, and took whatever he could assimilate. As Hegel borrowed from Empedocles and Heraclitus, as the Scepticism of Hume, and the Idealism of Spinoza overlap; so the thoughts of men upon the deep problems of existence mingle and flow from one to another. Any attempt to separate Balzac's ideas, and to apportion them severally to their primal sources would be worse than unprofitable, it would be misleading. . . . Balzac worked over and informed with the light of genius the confused mass of speculations absorbed by him in his reading."

This passage contains the key-note of Mr. Parsons' critique. The impossibility to classify Balzac's philosophy has led Mr. Parsons (a thorough student) to go too deeply and extensively into the history of philosophy, into literature proper, and into science—at least, in our judgment it has. Instead of furnishing a concise analytical introduction, Mr. Parsons has supplied a study in philosophy, in which—particularly in Louis Lambert—the opinions of Balzac have rather afforded a theme for independent development than formed a subject for simple analysis. This is not in the same measure true of "Seraphita"; though—and perhaps with the end in view of making the books independently intelligible—very much of the theory developed in the introduction to Louis Lambert is there repeated. We are, of course, aware, in saying this, that Mr. Parsons' purpose may have been different

from what we have taken it to be. The question is entirely one of fitness and advisability. As an independent study, with literary unity of theme, the introduction to Louis Lambert is a valuable one, and may be read with much edification.

We are assured, and heartily wish, that the Messrs. Roberts' edition of Balzac will have the wide circulation that the pains taken in its preparation merit. μρρκ.

ETHISCHES WISSEN UND ETHISCHES HANDELN. Ein Beitrag zur Methodenlehre der Ethik von Dr. Paul Hensel, Freiburg i. B.; 1889.

This pamphlet is a concise survey of the methods employed to solve the ethical problem. The author discusses Evolutionism, Utilitarianism and Intuitionism, pointing out the strength and the weakness of each theory. Evolutionism, he says, can only explain the ethical factors of moral life up to this day. Utilitarianism, perfected by Bentham, can be considered as a regulative basis for the conduct of whole nations. Intuitionism considers these theories as insufficient for individual morality and finds a basis of conduct in conscience. Yet there is no such consensus in matters of conscience, as ought to be, for making Intuitionism satisfactory. Dr. Hensel believes, that the opposition between Utilitarianism and Intuitionism, is an expression of the opposition between two radically different conceptions of the world, the one standing upon the principle of mechanical causation, the other upon a teleological view on the ground of the moral consciousness of free will.

A NEW PSYCHOLOGICAL JOURNAL.

The two burning questions of the day, it appears, are those of ethics and of psychology. And the psychological problem is coming more and more to be discussed from a physiological standpoint. We announced a few weeks ago the appearance of Professor Münsterberg's publication, and we have now again to announce a new Journal of Physiological Psychology. It is published in Hamburg and Leipzig by Leopold Voss, under the title *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*, edited by Herm. Ebbinghaus and Arthur König, with the assistance of H. Aubert, S. Exner, H. v. Helmholtz, E. Hering, I. v. Kries, Th. Lipps, G. E. Müller, W. Preyer, and C. Stumpf. All these names represent authorities of the first degree. Professor Ewald Hering of Prague and Professor Wilhelm Preyer of Berlin, are well known to the readers of *The Open Court* through several essays published in previous numbers. Professor Hering has distinguished himself by his new theory of vision, which in later years has received more and more attention. The names of the Professors H. v. Helmholtz and S. Exner are too widely and favorably known to need any comment.

The first number of the Journal which now lies before us, contains an essay by Prof. Helmholtz on the disturbance of the perception of minimal luminar differences through subjective light-production in the retina. Professor Hering discusses a topic related to the theory of simultaneous contrast; Hermann Aubert, internal language and its relation to the sensory organs and to motions; Professor Sigmund Exner, the disappearance of after-images in the motions of the eyes; Th. Lipps comments on a passage of Professor Mach's contributions to the analysis of sensations, and Professor Preyer communicates a number of valuable posthumous letters of Gustav Theodor Fechner (1887) *Über negative Empfindungswerte*.

The new Journal will appear every second month, each number of about eighty pages. The first number is dated April 22d 1890. Beginning with the second number, the editors propose to publish current reviews of the work done in all departments related to psycho-physiological investigations.

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CHICAGO, MAY 29, 1890

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AMERICAN AUGURIES.*

BY FELIX L. OSWALD.

IV.

For the last twenty-five hundred years the physical history of our planet has recorded the steady progress of an axe-made desert. "An ape, with a propensity for destruction," is the zoological definition by which a historian of that havoc proposed to distinguish man from his Darwinian relatives, but the time is near when the *Simia destructor* will become a reconstructive biped. The work of repair will begin before the end of the twentieth century, and it is probable that it will begin in the United States. The starving farmer of the Old World takes refuge in the emigration-office; but when all the prairies of the Far West shall have been turned into wheat-fields, when all the arable land from Maine to California shall produce its utmost, and yet insufficient, crops, the necessity of the *hic aut nunquam* will be brought home to the nonplused cultivator and lead to the recognition of the remedy.

Silviculture might treble the agricultural value of the worn-out soil, but that truth will not become patent till it is too late to wait for the regenerative effect of slow-growing forest-trees, and till the needs of a dense population leave no room for timber-nurseries. The productiveness of the soil will have to be improved by its own crops. There will be no time to wait for a bag-full of acorns to produce a forest of rain-attracting oaks, and the necessitous farmer will cultivate trees that promise to yield both direct and eventual profits, and fill his store-house as well as his grandson's rain-barrel—carob-beans, chestnuts, apple-trees, olives and sugar-pears. He will begin with the old fields that have ceased to produce anything else, for even where aridity has already far advanced, it is easier to keep a tree alive than to raise a crop of thirsty cereals. After the trees begin to bear, field after field of better land can be withdrawn from the acreage of the annuals, till it becomes safe to rely entirely upon the produce of perennial plants, which will both increase the profits and lessen the toil of husbandry.

The success of the first tree-farmer will soon induce others to follow his example; natural selection will do

more than scientific lectures, and every famine will increase the area of perennial plantations. In the United States the Pacific Slope will monopolize the olive-gardens, and the South the culture of bread stuff trees. The Alleghanies will become the great orchard-region, and the wilds of the Northern frontier a timber-plantation. Timber-trees will be carefully cultivated, but for furniture purposes rather than for housebuilding; at the end of the twentieth century few people will be able to afford wooden houses. Artificial stone, compressed by some hydraulic process, will probably supersede all other kinds of building material except adobe, for tile-bricks require fuel, and the age of steam will keep up the price of coal.

Our children will "see some wondrous engines spinning;" the exigencies of a fierce struggle for existence will stimulate an ultra-yankee genius of constructiveness. Huge, complicated, and yet almost automatic machines will turn out artificial wood and artificial leather; zinc-like composition as pliant as rubber cloth, and greatly improved kinds of annealed glass. The competitive tendencies of a utilitarian revival will do away with the condemnable attenuation of textile fabrics. Our grandchildren, like our grandfathers, will make coats that can stand the wear and tear of a life-time, and stockings that can be washed without illustrating the correlation of soap and holiness.

The citizens of the twentieth century will be in need of labor-saving machinery, and the supply will equal the demand. Automatic contrivances of all kinds will make domestic life easy and obviate the grievous alternative of co-operative housekeeping. They will purchase leisure at the price of the pleasures and advantages of "constructiveness," but not of domestic privacy. In large cities the Philadelphia plan of adding suburb to suburb will carry all votes against the New York method of piling story upon story. Electric tramway cars will shorten distances. An improved mail system will facilitate shopping and inter-suburban communication. City post offices will combine their functions with those of a city express company, and deliver packages of all sizes at so much per mile and per pound. Cities of London dimensions (and America will have several of them by that time)

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will connect their outskirts by a network of pneumatic tubes, and make the central depot the neighbor of the suburban mansion.

Adam Smith has taught us that sumptuary laws defeat their own purpose, and luxuries will multiply unhindered, and without increasing the price of frugal living, for the next generation will avail itself of the discovery that the nutritive basis of various articles of diet can be produced chemically from much cheaper materials. This chemical metamorphosis is entirely distinct from adulteration, and will be largely practiced as soon as the agricultural food-factors shall fail to meet the demand for their products. The prejudice against artificial sugar, for instance, happens to be justified by the defective process of its production, but that process could be improved till "glucose" would be quite as wholesome as its chemical equivalent—pure grape-sugar. Glucose can be made out of any kind of starch, and starch out of other things besides cereals; and necessity may yet teach us a way of making the prettiest candy out of acorns—perhaps even out of wood. Sawdust can be made into paper or vinegar, at the option of the chemical thaumaturgist. The organic laboratory of a reindeer's stomach turns moss into the richest kind of milk, comprising sugar, albumen, caseine and fat; and if we learn to imitate that trick, an old seagrass mattress may become the basis of an excellent dinner. And who shall say if, in the course of centuries, the successors of Professor Liebig may not discover a way, not only of supplementing the products of agriculture, but of dispensing with them altogether? *Quo non ars penetrat?* Knowledge and power are convertible factors, and the power of necessity has already forced its way into some pretty well locked secrets of Nature.

Necessity, the mother of innovations, will also compel the republican governments of the future to modify the practice of the let-alone policy. With some exigent amendments—the welfare of the community being the higher law—non-interference in private concerns should be the rule; but drunkenness, early marriages, and the destruction of private woodlands, will probably be found to come within the scope of those exceptions. If the administrators of a civilized commonwealth have no right to connive at public gambling, it is their yet more evident duty to suppress the public traffic in alcoholic intoxicants, for while the evils of gaming are only conditional, those of drunkenness are absolute and unqualified. If the attractive saloons of Messrs. Blanc & Co., induce a young stranger at Monaco to try his luck at their roulette tables, he has no reason to complain when they win his money, for if he should break their bank the law would protect him in the right to take the next omnibus to Nice and invest his winnings in guaranteed

bonds. But if they entice him to intoxicate himself in their refreshment rooms, they do him a greater wrong than if they should sell him a scorpion for a shrimp. He might discover his mistake in time and fling the pseudo-shrimp away, or recover from its sting, and there would be an end of it. But the pseudo-refreshment not only afflicts him with temporary insanity, but inoculates his system with the germs of a progressive disease. For all stimulant habits are progressive. A fondness for tobacco and small beer leads, or at least tends to lead, to a foible for wine and lager-beer, and finally to a passion for rum, absinthe, or opium. The Maine legislators of the future will act upon the recognition of the fact that poisons and stimulants are interchangeable terms, and our grand-children will not have superfluous land enough to tolerate a vice that turns food into poison.

In the interests of regeneration they will re-enact the old Saxon statute which made twenty-five years the minimum age for a legal marriage. From a physiological standpoint marriages between cousins, or between uncles and nieces, are far more venial than the nuptials of minors. The Brahmins have a tradition that the world was once peopled by a race of giants who lived five or six thousand years (in Buckle's quotations from the Puranas several of those macrobiotes figure with three score centuries: Vol. I. p. 97); but that premature marriages have reduced the length of our lives and statures, and will continue to reduce them till we have dwindled to an average of ten years and ten inches. The author of the fifth chapter of Genesis seems to share that theory, but contents himself with giving a descending scale of longevity, together with the marriage-date of each individual, leaving the reader to draw his inference.

The last remnants of our woodlands will be guarded like national palladia. There will be national forest-reservations on every mountain-range. Every county will have a public forester, or superintendent of tree-nurseries. All public highways will be lined with a double row of shade-trees; worn-out fields will be planted with hardy fruit-trees, sand-firs, or as a last resort, with mesquites and locusts, and the municipal authorities will employ all legal means to enlarge such plantations; premiums, immunities from public duties, and stringent protective laws. Private owners of large mountain-forests will hold them in fee-simple of the nation and will be held to observe the conditions of that contract as strictly as the proprietors of the Swiss Bann-waelder, or bulwark-woods, that protect the mountain-hamlets from the fall of the avalanches. The larger municipal forests will become national parks, and the Oberlins of the New World will vie in popularizing their attractions by the addition of

benches, swings, etc., and the introduction of European singing-birds.

The practical common sense of the Anglo-American farmer will sooner or later recognize the truth that in an agricultural country the destruction or preservation of forests must determine the decision of Hamlet's alternative. If their southern neighbors should not follow their example, if Central America should become as barren as the plains of Syria, the territory of the United States will form the oasis of the American Desert, for the physical geography of the Old World shows that isolated woodlands enjoy a moist climate of their own. The forests of Mingrelia, the ancient Colchis, in the eastern Caucasus, though surrounded by Russian steppes and Armenian sand-hills, are still as fertile as in the days of the Argonauts. The wooded oasis of Sidi-Belbez, in southern Algiers, enjoys frequent rain-showers, while in the adjacent plains the annual rainfall does not exceed four inches.

Even if the enforcement of forest-laws should be left optional with the different States, the vices of an improvident community would not materially affect the prosperity of its wisest neighbors. Wooded mountain-states, however, would profit by a natural advantage, for the remnants of their hill-forests would serve as a ready-made nucleus for artificial plantations, while in barren plains it is the first step that costs—the difficulty of protecting the storm-exposed saplings. If, therefore, the time should come when the Rocky Mountain locust shall ravage the plains of Ohio, and the Delaware drift-sands obstruct the mouth of the Susquehanna, the woodland of Pennsylvania will probably continue to deserve its name.

[TO BE CONTINUED.]

IS NATIONALISM A SIN AGAINST HELL?

BY T. E. WAKEMAN.

"Sins against Relativity" are the most unpardonable, but fortunately the most impossible in the world. Existence is founded upon duality, and is in itself but a contrast. The Good is but the hitherside of the Evil. The childish question, Why does not God kill the Devil? is answered by the instant thought that it would be the denial and end of both. The good and the bad, the high and the low, must perish together. At bottom no one wants or expects to kill the Devil or to quench Hell.

Mr. Conway (in *The Open Court* of April 17) thus wisely describes Guido's famous painting of the defeat of Satan: "The most chivalrous sympathizer with the 'under dog in a fight' could hardly feel any pity for this prostrate fiend. His countenance is cruel: the mouth and teeth made to bite: the complexion a dirty copper: the eyes crafty and hard: a creature

evil for the love of evil. The angel points his sword at the prostrate demon, but of course it is a sham gesture. *He does not mean to kill him.* Satan is too useful as an executioner and a horror to be slain." His Hell is indeed, the necessary foundation of Heaven. All that the Divine Powers wish or expect is to keep him prostrate, "bound in chains for a thousand years" at a time, and thus made to know and keep his place. Were the angel's sword to threaten his *vital* parts, the angelic hosts themselves would parry the blow. Thus is the fundamental truth of the duality of good and evil imbedded in the imagery and play of old Theology.

But turn the leaf from this old Faith-lore to the great, new, true, actual World, and the same truth or truism is the first to be recognized. No Angels of change, of evolution, or of reform must really remove the now cruel conditions which made and still make evolution and reform needful and possible, however ugly, dark, and Satan-like some Reformer, as a modern Guido, may paint them. Thus of late a tremor of fear and distrust has run through "celestial minds" for fear that the newly coming, white-winged, sword-bearing Angel, NATIONALISM, may be for sending her sword right into the very heart of Need, the mother of Selfishness, which is the substance of Hell, which is the foundation of Heaven! Such was evidently the fear about Nationalism, which inspired some of the late leading editorials in *The Open Court* on competition, co-operation, socialism, and kindred topics. Such also is the inspiration which prompted the article of the famous Belgian Jurist, Prof. Emile de Leveleye, in the *March Contemporary Review*,—such, in a word, is the most general and crushing criticism against Nationalism. It is denounced as a sin against Hell? Beware! It will smash the very foundation of Heaven! Under its emasculating influence, we are told, your blessed back-bone, which you have inherited from glorious Teutonic Swordsmen, will be gradually deliquesced. Your muscle and nerve melt into the original jelly-fish protoplasm, without "differentiation," beyond the sameness of individual cells—colorless, formless, worthless, and without a bone!

Now let us consider somewhat whether there is really any substantial danger to either Devil or Hell, if the prophecy of Nationalism should become measurably triumphant? On the contrary, will it not like the good angel conquer and keep the benefit of both without destroying either?

First: The terrible physical needs of food, clothing and shelter will certainly remain as imperative as ever. Nationalism or Co-operation is simply the higher form of social action by which Evolution provides that hunger, nakedness, and exposure shall be as an ever present possibility, conquered, but never

extinguished. They will forever stand before man as incitements to action; but civilized, social, co-operative man will be their master, while the savage man was and will be their slave.

Evolution plainly shows how this victory over nature must be and will be achieved, to wit: In the *savage* state man had to meet these needs alone, or in small tribes or families. Then it was that the *strongest* survived, as among brutes, and brutal men. In the *barbarous* state, the social organism by natural selection became more and more the dominant fact by which the life, protection, and welfare of the community was secured. Those only who became fit co-operators and parts of this social action succeeded. Thus the *fittest* survived instead of the strongest and most brutal. This is also finely and instructively illustrated in comparative sociology, for instance, among the beavers, the bees, and the ants.

In the *civilized* communities, Society has become a complicated, living, and growing social *organism*. The individual has no chance of life, except as he fits into and grows with and contributes to the social life, and he who fits and grows so as to best further and sustain the organic whole, present and future, is the one in the organ that is and ought to be selected. Thus evolution works out that *the social best* is to be her final favorite in civilized communities. In them evolution acts on individuals not directly, but through society and its requirements of the best. The general disregard of this fact by competitive individualists and anarchists is fatal to their cause.

Thus in the progress of society, evolution has first thrown its selecting power in favor of the *strongest*, so that then individual competition reigned; then upon the *fittest* when adjustment to social conditions was the saving grace; and lastly upon *the best* in social civilization, where *the moral* becomes the crown and success of life. Those, therefore, who cite the laws of individual competition as the final and necessary word of evolution are simply giving us its savage form, and have not reached its higher stages, when it selects the fittest and finally the best. In its animal and savage stage evolution selects physical advantages; then the physical becomes fixed and changes little afterwards; the natural selection next falls in favor of intellect, "cuteness" and social fitness; finally intellect alone ceases to avail, and then goodness, that is, conduct which builds and sustains the organic action of the whole organism or community, is that which avails or will avail.

The anarchists and their friends who now insist upon "wolfish competition" as the basis of an industrial community have only begun the study of evolution, and are trying to continue its savage stage in civilization. They are looking backward from the

present, instead of from the ideal future of Mr. Bellamy. If there is anything in evolution, that Ideal Future will be the gradual triumph of *the best*, not necessarily of the savagest or the strongest. It is certain, for instance, that international wars will cease, and the necessities of the industrial age become more and more dominant. The organic action of civilized communities will, therefore, become more industrial. It will be more a war against nature, and less against man. But just as under the old military *régime* "no one goeth to war at his own cost," but the community by its organic action made war its business, and thus put down or overgrew all private and guerilla warfare, so in industrial affairs the wholesale and organic action of the community must and will finally overgrow all partial efforts at production. That is, the monopolists, who are guerilla chiefs of industry, must go out of existence or become parts of the general administration of the community for its general benefit. The general benefits of the largest and cheapest means of production must, by natural selection, result in the organic action of the community to achieve that end. In industry, evolution will work out the same result as it has done in war government, justice, money, postal affairs, and already largely in transportation.

Evolution no longer, or only slightly now, acts upon the individual singly, as if he were a solitary savage, but chiefly as a social factor, organ and co-operator. The reason why industries have not been sooner socialized, is easily seen to be due chiefly to their past conditions; viz: (1) the low state of civilization, which could be sustained by individual labor with little machinery, (2) the general existence of slavery and serfage under privileged classes, (3) the general employment of the organic action in military and church affairs, which dotted Europe with battlefields, castles and cathedrals. The introduction of mighty machinery, which makes the best efforts of individuals hopeless and childish; the abolition of slavery, and military and church domination leave no choice under evolution but an era of industrialism, by, through, and under the organic action of the people; or else the reinstitution of a despotism similar to that of Cæsar or the Tzar which is not to be thought of. If society is an organism, as Hobbes, Comte, Spencer and all scientists teach, its organic action is the main subject of sociology, and socialism is simply applied sociology under evolution, which makes it inevitable.

These are general considerations, but they only lead to and solve the apparent danger, that the success of the industrial era and *régime* through some kind of Socialism or Nationalism, will remove competition, satisfy the needs which only can excite activity,

toil and ambition, and thus lead to physical, mental, moral and social emasculation and death. Those who thus apprehend have simply mistaken the first or savage stage of evolution for the whole. The direct contrary is the result. When evolution falls upon and selects the member of a civilized society, because he is the best, and best performs social requirements, it makes necessary and includes both intellectual and social *fitness*, and also physical *strength*. The strength of the savage, *plus* the fitness to the social order, and *plus* the intellectual and moral purpose of a citizen are included in *the best*. The greater always thus includes the less, but that less is the subdominant foundation of the higher, and in social civilization is attained by culture, devotion and discipline, instead of "wolfish competition," and brutal and selfish purposes, which can only tend to keep man a wolf, a brute, and a devil.

Thus, secondly, whenever the organic action has made these higher social requirements upon the individual they have been easily reached. It is this fact that has made military service the source of honor, strength, duty, and nobility. This has always been so steadily the result of "civilized warfare," that many officers and "aristocrats" seriously argue, that all that is noble in man will depart if he ceases to be a human butcher, and to have war as the main organic purpose of society! But let them first see what the *voluntary* armies of industry can do, in calling forth and developing physical *strength*, social fitness and devotion. Instead of the selfishness of "wolfish competition," let us have social duty culminating in *the best*, the noblest organic action, sustaining and sustained by the noblest individuals! Then the victories of peace will be greater than those of war, in the evolution, and not the destruction of vigorous, noble manhood.

But there is no danger that all this nobility of the people will ever quench the hells, or kill the devils. It will be the fulfilment of what Swedenborg teaches to be the first duty of the Angels, that is, to preserve order in Hell, and keep the Devils there. Hunger and cold, disease and death will be back of, and excite the motive powers of the social demands and requirements, and the selection which will sustain the social, industrial activity, and the physical, intellectual and moral nobility which will keep those natural devils down.

Goethe has said this the best of all: In the most pathetic passage of literature, when the aged Faust has entered the final industrial era, and conquered peace, and is about to die, Need, Care, Guilt and Death, because he was a mortal, came to claim him as their own. The industrial Faust, the symbol of Humanity, banished them all—*except* Death: "Four came, but three have gone," he said, "for Death remains as a solace and a brother."

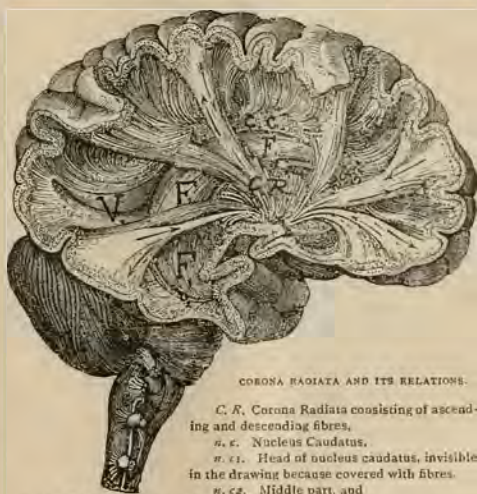
Why may not evolution realize this dream? When finally, in the old age of every individual, the three devils, Need, Care and Guilt, cease to haunt, Death may remain,—not as an avenging fiend, but as the "brother of sleep," the angel of rest. This can only be when Evolution has brought "organic action" to that advanced stage, where its impulse will be expressed in that Lord's Prayer of the new era—which let us learn to repeat:

"Each for All,
All for Each;
From each his highest deed,
To each as he may need."—Amen.

THE HEMISPHERIC REGION.

In ascending above the Thalamus we rise into the highest and most important province of the brain, into the hemispheric region, consisting of the cortex and the striped bodies or *corpora striata*.

If we pursue the course of the fibres of the crista upwards, we notice that on each side they break



CORONA RADIATA AND ITS RELATIONS.

C. R. Corona Radiata consisting of ascending and descending fibres.
N. C. Nucleus Caudatus.
N. C. H. Head of nucleus caudatus, invisible in the drawing because covered with fibres.
N. C. T. Tail of nucleus caudatus.

X. Represents the place where the lentiform body lies buried underneath the protruding fibres.
C. C. Corpus Callosum, connecting the two hemispheres with each other.

F. F. Fornix, or the Vault; thick bundles of white fibres, rising in the marginal circunvolution of the temporal lobe (*gyrus hippocampi*), over-arching the thalamus and descending to the corpora candelantia, underneath the front part of the thalamus.

The lateral ventricle lies between the fornix, the tailed body which forms its floor, and the corpus callosum which forms its roof. The right lateral ventricle is separated from the left through a double-walled membrane, called *septum lucidum*. Each lateral ventricle possesses three cavities which are called its anterior, lateral, and posterior horns.

V. Lateral ventricle, posterior horn.

V. A. The anterior horn of the lateral ventricle, between the corpus callosum above and the front part of the fornix below.

V. M. The lateral or middle horn of the lateral ventricle, its floor being the lower part of the fornix.

I. Insula Reil, being the deepest portion of the Fissure of Sylvius.

through a thick oval body (the *corpus striatum*) and then, above the corpus striatum they radiate fanlike, and disperse in all directions. The narrow passage through the striped body, filled with these thick bundles of white fibres, is called the *Capsula interna*, and their fanlike dispersion above the striped body is called the *corona radiata* or crown. One smaller bundle of nerve fibres passes round the striped body to the frontal lobe of the brain, and this tract is called *capsula externa*.

The corpus striatum is thus divided by the *capsula interna* into two parts, which after their shape are called the lenticular and the tailed body—*nucleus lentiformis* and *nucleus caudatus*. The lenticular body appears in a lateral view, if looked at from the island of Reil, like a slightly oval lense. It is situated outside the internal capsule. The tailed body shaped like a big comma whose head lies in front and whose tapering tail stretches backward and downward, lies inside the internal capsule. The nucleus caudatus is in its thicker frontal part continuous with the gray matter of the hemispheres; it is also intimately connected with the shell (or putamen) of the lenticular body, and it engirds in its tail-like elongation the



NUCLEUS CAUDATUS. (After Edinger.)

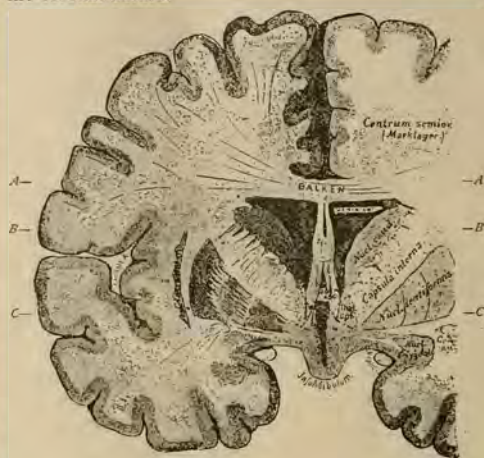
thalamus opticus from which it is distinctly separated by a sharp groove (*stria terminalis*) in which runs a small bundle of white fibres, *tentia semicircularis* which is the continuation of the olfactory nerve rising from the olfactory ganglion. The nucleus caudatus forms the floor of the posterior horn of the lateral ventricle, and its tail ends in an eminence, called the amygdaloid tubercle.

A great part of the coronal nerve fibres rise from the thalamus. These nerves connect the thalamus with almost all regions of the hemispheres; near the thalamus they are gathered in bundles called the stems of the thalamus.

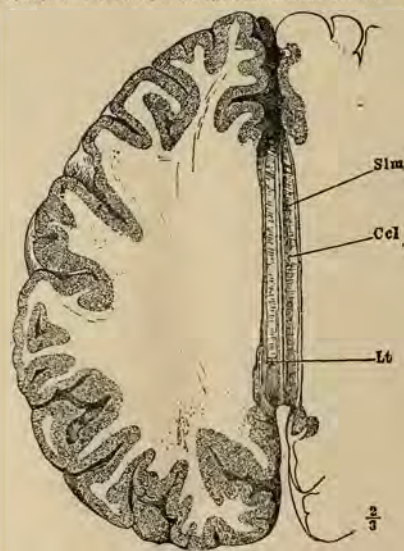
For further information we refer to the adjoined illustrations and diagrams, representing the brain, in coronal, sagittal, and horizontal sections.

Coronal sections are such as run parallel to the

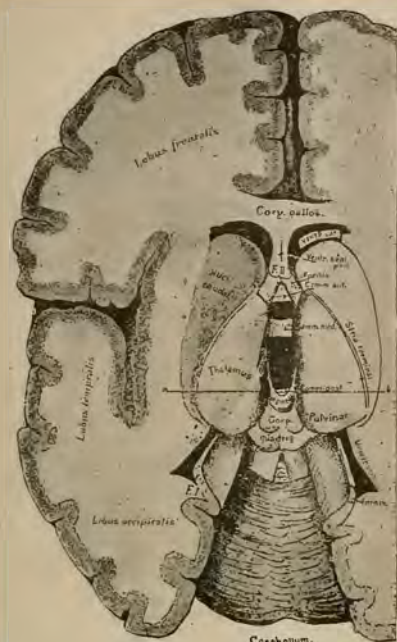
coronal suture of the cranium. For instance a vertical section through both ears is a coronal section. Sagittal sections are such as run parallel to the sagittal suture of the cranium. The sagittal suture stands like an arrow on the string of a bow at right angles upon the coronal suture.



CORONAL SECTION OF BRAIN. (After Edinger.)
AA, BB, CC. Indicate the following three horizontal sections.



FIRST HORIZONTAL SECTION OF BRAIN. (After Henly.)
Indicated in the coronal section by an imaginary line to be drawn through AA, and laying bare the corpus callosum (Germ. *Balken*).
Lt, Ligamentum tectum, Striae longitudinalis Lancisi.
Sln, Striae longitudinalis mediales: white longitudinal fibres, interlacing in several places, running along in the middle of the corpus callosum. The mass of white substance between the cortex and corpus callosum is called *Centrum Semiole*.—Cel, Corpus callosum.

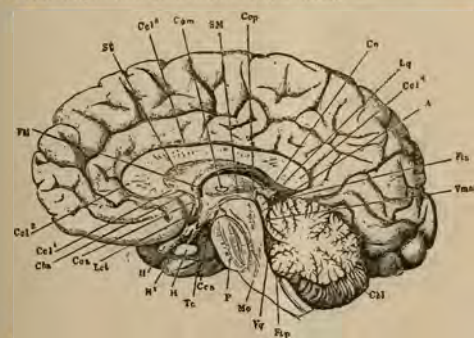


SECOND HORIZONTAL SECTION OF BRAIN. (After Edinger.)

Indicated in the coronal section by an imaginary line to be drawn through *BB*, laying bare the thalamus and nucleus caudatus.

The occipital lobes in reality appear as close together as the frontal lobes, so as to cover the cerebellum.

The Fornix rising in front from both thalamus shows a cross-section in *F. II.* The fornix overarches the thalamus and descends to the marginal convolution on the base of the brain, which is visible in *F. I.* only. This convolution is called the Gyrus Hippocampi. The gyrus hippocampi passes from the occipital lobe into the front lower part of the temporal lobe, where it is called Gyrus Uncinatus or hooked circumconvolution.



SAGITTAL MEDIAN SECTION OF BRAIN.

F. I. Foramen Mono, the entrance from the third ventricle into the lateral ventricle.

S. M. Sulcus Mono, a groove of the third ventricle in the thalamus.

St. Septum pellucidum, a membrane forming the inner wall of the lateral ventricle. Each ventricle having its own septum pellucidum, there are two septa directly facing each other. The space between them is wrongly called the ventricle of the septum pellucidum. This space is, in fact, no ventricle, but must be conceived as the continuation of the fissure

between both frontal lobes. The continuity of this fissure with the ventricle of the septum pellucidum has been interrupted by the growth of the corpus callosum. The corpus callosum (the commissural fibres joining both hemispheres) is little developed in lower mammals, it is strongly developed in the monkey and is still more prominent in man.

Cel. 1. Rostrum or Beak, lowest part of the corpus callosum.

Cel. 2. Genu or Knee of corpus callosum.

Cel. 3. Upper surface of corpus callosum.

Cel. 4. Splenium or Wedge; posterior part of corpus callosum.

Cha. Peduncles of corpus callosum.

Com. Commissura Media, connecting the two thalami.

Coa. Commissura anterior, inter-connecting the temporal lobes.

Cop. Commissura posterior; white fibres connecting both thalami.

Lct. Lamina cinerea terminalis; part of tuber cinereum, originally the top and terminus of the primitive brain (as explained in the development of the brain).

II. Optic nerve.

Hy. Chiasma of optic nerve.

H. Hypophysis or pituitary body.

Tc. Tuber cinereum.

Coa. Corpus candicans.

P. Pons.

Mo. Medulla oblongata.

V. Fourth ventricle.

A. Aqueductus Sylvii.

Fla. Incisura pallii, sup. vae.

Flp. Vallicula, posterior vae.

Lq. Four Hills.

Cu. Conarium or pineal gland.

Cbl. Cerebellum.



THIRD HORIZONTAL SECTION OF BRAIN. (After Flechsig.)

Indicated in the coronal section by an imaginary line to be drawn through *CC*, Genu or Knee of corpus callosum.

Th. Thalamus.

Mc. Middle commissure.

f. Fornix.

sl. Septum lucidum.

sp. Splenium.

N. C. Nucleus caudatus.

ah. Anterior horn of lateral ventricle.

ph. Posterior horn of lateral ventricle.

C. Tail of nucleus caudatus.

L. N. Lenticular body.

I. K. Internal capsule, anterior limb.

I. K. Internal capsule posterior limb.

K. Knee of internal capsule.

E. K. External capsule between lenticular body and claustrum.

Cl. Claustrum.

in. Insula.

e. Operculum.

F. Frontal lobe.

f. III. Third frontal circumvol-

tion.

O. Occipital lobe.

T. S. Temporo-sphenoidal lobe.



CROSS-SECTION THROUGH GYRUS HIPPOCAMPI. (After Edinger.)

The gyrus hippocampi is accompanied by a smaller circumvolution, the gyrus dentatus, (or fascia dentata) which is almost bare of all gray substance. It produces by protrusion inside a ridge in the lateral ventricle, called Horn of Ammon, or pes hippocampi major. The fornix rises from fibres originating in the gyrus dentatus, where it is called Fimbria.

All the marginal circumvolutions of the hemispheres; viz., the gyrus fornicatus, which surrounds the corpus callosum, its continuation, the gyrus hippocampi with the fascia dentata, and the cornu Ammonis, and also the nerve-fibres of the striae Lancisi are strongly developed in animals in whom the function of smell is prominent. In the foetal stage and in infants they are comparatively large; in the adult man they are almost atrophied. In the dolphin which has no olfactory bulb, they are found in a state of retrogression.

CORRESPONDENCE.

THE SURVIVAL OF THE VILLAIN.

To the Editor of *The Open Court*:—

In consideration of your noble statement: "That if it be found that I am wrong, I will abandon my case and join him who teaches the truth," I am encouraged to make an effort to win such a powerful ally. Firstly, to prove that competition and gravitation are alike and both necessary laws, you say: "Every gravitating particle upon the Earth gravitates towards the very same point in the centre of the globe." Now I want you to recognize that they do not and cannot compete, for every element or substance must gravitate with speed or force according to its density, regardless of every other one. The feather that would undertake to compete with the leaden bullet ought to be sent to the lunatic asylum.

I am fully aware of the fact and admit that in all lower orders of life cruel competition against every other of its kind is the condition. But co-operation is the law of life within the organism itself, and this is verified by Embryology. Beginning with a single cell that divides itself into two, the two into four, the four into eight, and so on until the requisite number of cells are produced with which to build the organism. These cells seem to have an individuality, and co-operating to build this organism arrange themselves into three layers, the centre one taking up all that is deep, like arteries, bones, etc., and all the cells of all the layers working in harmony to complete this wonderful structure. There is no function or faculty any more honorable or necessary than

any other, for the life and existence of the structure is entirely dependent on all of them, and when the organism is finished whether it be a horse or man, the blood or circulating medium will distribute itself to the various parts of the organism just in proportion to the work and waste it has endured, if the muscles only have been used and worn, the circulating medium will go there as readily as it will go to the brain, if that has been the part of the organism worked. An organism is a city full of cells. Nature knows that the greatest good of each is the greatest good of all; and Nature is just in the distribution of her circulating medium to keep the organism healthy and symmetrical in all its parts. Nature has no cruel and conflicting competition inside of the organism. It is only when she leaves the organism to be guided by its imperfect brain that this death-dealing element steps in. As soon as an organism is developed high enough to produce a brain that loves such virtues as equity, magnanimity, and gratitude, then it becomes disgusted with dishonest competition, and makes an effort to take a lesson from nature's method, which of course is emulation; that is, that a skilled hand reflects credit on the whole body; that just conclusions arrived at by the brain are a glory to the whole organism; that you shall do a grand deed not to ruin your fellow, but for his good and that of the whole community. You say, "If we annihilate competition the whole country would sink into a state of general stagnation." This carries the impression that emulation is not as potent to inspire effort in humanity as competition. With the experience of the wars where emulation is the motive, how can you think so. Byron says something like this: "The all white eye, the roll in the dust, these reward the rank and file by thousands. The rest may get a ribbon at their breast." It is to get that ribbon that thousands give up their lives, and money could not buy it from those who get it. This proves that to be well thought of by our fellows, is the highest of all incentives. Where men are so successful in this dishonest competitive system as to be able to grasp a million of other men's earnings, instead of being well thought of, they are being despised as wholesale legal robbers.

You say that "The purchasing power represents the amount of energy that humanity can devote to the production of a special article." This in my judgment is your most vulnerable statement. There are certainly a million idle men very anxious to devote energy to production. It is known that the energy of many is not devoted to the production of wealth, but to the effort to get it away from those who do produce it. There is also an army whose energy is devoted to trying to sell this wealth to people who have no purchasing power, and the energy of the many is employed counteracting the efforts of others, to keep them from producing the things that they do, that the prices may be high. For the present is really a system for the prevention of the production of wealth, and it has succeeded to such a degree, that it is known that we could manufacture a great many times more than we could possibly consume. No doubt savages die of starvation, but it is always in time of famine; they will not work eight hours a day; the white man will, and he has the beneficent inventions to help him produce enormous quantities of wealth. But this deadlock of limiting production to the purchasing power is so shortsightedly wicked that 12,000 of the poor died of starvation in New York, not when there was a famine, but when the grainaries were bursting. You say that my sentence "That in present conditions the villain is the fittest to survive," is not true.

I hope the following will convince you of your mistake. "The present scramble for existence is developing the brutal side of human nature," and my reason for it is, that the qualities we abhor, fear, and despise in man are those which insure him material success, and these qualities are being exercised more and more as competition grows closer.

The shrewd, suspicious, and selfish mortal who watches his

opportunity to take advantage of other men's necessities, who delights to trample on the weak, whose heart and hand are closed against undeserved woe—material success is sure to crown the efforts of such a wicked brain. And how sad to think that the prission of all the virtues we adore, such as trustfulness, tender pity, benevolence, simple truth, and a resolve to be guided by the golden rule, that those virtues and that resolve will lead him and his beloved ones to the poor house. The man who loves his family dare not exercise his virtues; hence they become rudimentary, and he must exercise his vices; so they become developed. If you will help us make the conditions such, that the nobleman instead of the villain, will be the fittest to survive, then you will be a redeemer of this world.

C. ORCHARDSON.

LOOKING UPWARD.

EXTRACTS FROM A REJOINER TO COMPETITION AND CO-OPERATION.

BY L. D. A.

Competition, we agree, means "a common strife for the same object." But because there is the same *object* in view, the author of "Looking Forward" airily overlooks the wasteful friction of the *strife*. Strife, in the sense of effort against evil toward good, is an essential of life; but, in the sense of life, striving against life is necessarily a waste of life.

Really between me and my opponent there is only a difference of view. If he will once admit the possibility of reducing selfish good from its leading, to a subordinate, position in human nature, he becomes from that moment a Nationalist. The Nationalist does not expect to see competition abolished in an instant, but converted gradually into emulative co-operation by natural means.

It is hopeful to observe that my "competitor" believes in some kind of co-operation. He does not exactly tell us what it is, but, although maintaining that co-operation is "contrary" to competition, he exclaims: "Let us have more co-operation of any kind, if you please," etc., and therefore, I suppose, less of his cherished competition. But stay! His co-operation "does not exclude free competition"! Evidently his ideal after all, then, is some kind or degree of emulative co-operation, which is exactly my own ideal. Thus is the "fierceness" of the strife commuted (when anyone sees his part in the whole) into increased efficiency for the common good—increased harmony—in itself a nobler result, and promising nobler general results. To be a Nationalist one need only believe in the principle of the circulation of forces.

AN ANARCHIST ON NATIONALISM.

To the Editor of The Open Court:—

THE Anarchist, habituated by the nature of his theory to apply hard inductive methods to social science, cannot regard such flounderings of a philanthropic writer as is L. D. A. among big words without a feeling of commiseration. About the time of Nimrod, mankind divided into rulers and ruled, employers and employes, masters and slaves, a relation which, under one name or another, everywhere continues. Natural selection weeds out of the servile class variations unfavorable to life and propagation under the conditions of slavery, with this very obvious result that many populations, once spirited enough, have become servants of servants. Of the variations unfavorable to life and propagation in the dominant class, natural selection takes no visible account, because the fundamental one of all—the desire to rule—is itself so transcendently unfavorable. "Sad shall be the end of a wicked race." No dynasty of rulers ever lasted long. While natural selection thus weeds out the ruler-class but preserves the rulable, it has raised up, under tremendous stress, a third—the class who will neither rule nor be ruled. The man of this character dies a martyr, if he turns to social reform.

C. L. JAMES.

EAU CLAIRE, WIS.

CORRECT PREMISES, BUT WRONG CONCLUSIONS.

IN REPLY TO MR. WAKEMAN, MR. L. D. A., AND MR. ORCHARDSON.

THE argument which Mr. Wakeman supposes to be in favor of nationalism, is a very good one. He says:

"In the progress of society evolution has first thrown its selecting power in favor of the *strongest*, so that then individual competition reigned; then upon the *fitted* when adjustment to social conditions was the saving grace; and lastly upon the *best* in social civilization when the *moral* becomes the crown and success of life."

The argument is good, for I believe it is true; and it is the very same thing that I have been preaching all the time.

I have always contended against the statement that the most brutal and shrewd are the strongest. Man is stronger than the lion, although the lion has bigger teeth, tougher muscles, and sharper claws. The fox may have been more cunning than the anthropoid, yet the anthropoid was more intelligent. His cunning was tempered with moral qualities, and such shrewdness we call intelligence. Those moral qualities helped him to progress and without his moral qualities man would have remained an animal like the gorilla, in spite of strength and shrewdness. It is a further evolution and a higher development of morality that we are all working for, and we hope that our efforts are not in vain.

The shrewd and unprincipled man is by no means the strongest; the more moral a man is, the fitter will he be to survive. But do not call a good-natured fool a moral man simply because he is not given to vice. This blasphemes morality. A moral man is a character who does all he can to acquire all the intellectual and physical qualities necessary to make a success in life.

That is all conceded and I have repeated this truism again and again. The salvation of humanity can be found only in morality, and morality is obedience to the laws of nature, above all to the sociological laws, the observance of which makes society grow and prosper. But why from these premises must we conclude that all property should be nationalized, and that all industrial enterprises should be run by the state? These premises are correct, I grant, but they contain not the slightest reason why we should sacrifice individual freedom to the moloch of a national government, which would be the owner of all the land, the sole capitalist, and the only employer of labor, so that all citizens would become government employees

* * *

All the arguments of Mr. Wakeman, that society is an organism, were used with great advantage two thousand years ago for justifying the caste system of Egypt and of India. If the simile hold good, there is no reason why we should not again introduce the heredity of caste, for in organisms also all the cells produced by brain-cells become brain-cells again, the liver-cells bring forth liver-cells, etc., etc. All the organs of an organism, the stomach as well as the hands, are of equal importance, why then should not, (as we are told in the fable of Menenius Agrippa) the hands do all the work, the stomach all the digestion or enjoyment, and the brain all the governing? I suppose that none would accept these consequences.

The simile is not inappropriate, yet we must not forget that it is a simile. I also consider Society as an organized whole, and strongly object to the conception of individualists who believe that mankind is like the beach of the ocean, a heap of many millions of independent grains of sand. But conceded that society is an organism, there is no reason why all capital should be controlled by the government.

Æsop Junior tells a fable about the limbs of a body who were dissatisfied with the distribution of their circulating medium, called blood, which they receive for services rendered. The blood had in their society a free circulation, and the government called consciousness, residing in the capital called brain, did not

trouble much about it. The limbs, however, were dissatisfied, for there are arteries that contain a great abundance of blood and yet they do not want it themselves; they have to distribute it to the limbs, and the limbs receive only small currents in the capillaries, which was no fair equivalent for their services rendered.

Now it was true that for some reason or other the limbs had really not received their fair share. So they held a meeting and proposed different plans. The right foot said: The cause of our suffering is the brain; there is too much interference of consciousness. Leave nature alone and nature will let all things adjust themselves. The left foot said: Let us bring all the functions of the body under the control of consciousness and all our ailments will soon be settled. We ought to have more concentration and co-operation, more regulation in the interest of all. We live in a state of anarchy which forces us to drudge unceasingly. If the blood were evenly distributed, according to our needs, and not according to the notions of the arteries, who keep so much blood for themselves, we would not all be obliged to work constantly. Four hours a day for a limited time of our existence would be enough work to keep us all comfortably alive. Imagine the aorta alone possesses many millions of blood-corpuscles, enough to nourish the big biceps of the arm for a whole year, and yet the biceps receives too small a share for health.

The hands proposed another method; they declared that if they did not receive the ratio to which they were entitled they would strike. Then the arteries might try to live without the assistance of the hands. The plans of the feet were considered, yet not executed. But the hands being serious, brought matters to a crisis. The arteries could not at the time fulfil all the demands of the hands, but after some discussion and arbitration a compromise was reached, according to which the limbs received a fairer share, for which they could afford to do better work than before in a shorter time.

Laborers, do not believe in Utopian schemes! do not seek for a fool's paradise, but live in the actual present! We live in a republic. If you are underpaid, try to help yourselves, and fight for your right with all the legal means at your disposal. Improve your situation wherever you can, and whenever a further progress of mankind justifies an amelioration of your condition. If you expect help from the nationalization of property, because then you would be provided for by the nation, you might just as well wait for the institution of a Schlaraffia, where pigs run about roasted, and all kinds of cakes grow on the trees. But bear in mind that if in your struggle for amelioration you fight with immoral means, if instead of the ballot, you employ the bullet; if instead of raising yourselves, you attempt to keep others down; if you destroy property, you will not only ruin yourselves, and blunt the sympathy which public opinion has with honestly struggling labor, but you will also injure your cause. Unnecessary strikes, unjustifiable demands, violence, rampant and incendiary speech, will harm society in general and yourselves in particular.

* * *

Mr. Wakeman maintains that "in its animal and savage stage evolution selects physical advantages; then the physical becomes fixed and changes little afterwards." This is an error, invented as a makeshift answer to my argument that, if man did no longer use his backbone, his backbone would become a rudimentary organ. The fact is that all life is plastic and must under changed conditions necessarily undergo changes.

It is true that the human form remains constant within certain limits. But this is so because and in so far as conditions remain about the same, and if a human form is changed too much natural selection will discontinue its propagation. For instance, if a man does not exercise his lungs, their breathing capacity will

be reduced and the consequence will be not a new species of man with inferior lungs, but the man will die of consumption.

There is a certain class of animals called Ascidians or Pouch-Creatures which consist of a bag of animal substance with digestive and respiratory organs only. They lead a mere vegetative life. Our naturalists look upon them as forms of retrogressive development from snails. The snail possesses a head and muscles for locomotion. Some of the snails found it possible to live without a head, so they lost that little bit of brain which a snail possesses and became headless snails or Ascidians. Theologians of the old school may believe that man or at least the soul of man is not subject to natural laws, but so long as Mr. Wakeman does not prove the contrary, I shall continue to believe the scientist in preference to the prophet of a nationalistic Utopia.

* * *

Mr. L. D. A. finds it hopeful that I "believe in some kind of co-operation." Did he suppose that I do not believe in co-operation? I should like to see the man who does not! Co-operation is a fact, and society, in its present form is indeed one great co-operative system. The issue of nationalism, however, is not whether co-operation is possible, but whether free competition can be abolished, and if so, whether it would be wise to abolish it.

Nationalism proposes to abolish competition by changing the present state of society into one great national workhouse. Yet I maintain that even in the great workhouse of national co-operation competition cannot be abolished, for people would have to compete for the more desirable positions, and these would be fewer in such a state than they are at present. Personal liberty would necessarily have to go, for only the Supreme Working Master General and his assistants in the government of the nation would be independent and free men. The rest might be allowed to express their wishes as to the kind of employment they would prefer—a privilege which is usually granted also to the inmates of our penitentiaries. But if, as will frequently be the case, a compliance with so many wishes becomes inconvenient to the board of managers, these wishes will be overruled. It is to be expected that the fulfilment of all wishes will be an impossibility.

If a laborer, skilled or unskilled, under the present state of society, is dissatisfied with his work or with the treatment he receives, he has a chance of finding another employer. There is no hope of that kind in the national workhouse of Mr. Bellamy.

Mr. L. D. A. is mistaken when he declares that I "airily overlook the wasteful friction of the strife." Progress in civilization is possible only through economy of labor, and the avoidance of wasteful friction is economy of labor. I believe in progress, I believe that humanity in future centuries will be better than it is at present; it will be nobler in moral respects, and it will also be more comfortably housed, and clad, and fed, than we are now. "In the new order of things," I said in the article under discussion, "we hope all unnecessary struggle will be avoided, we shall have less waste and a minimum of friction, yet the law of competition will remain in a future and better state of society just as powerful as it ever was since time immemorial, and as it is to-day."

* * *

Mr. Orchardson has not yet given up his favorite idea that production ought to be adjusted to the needs of the people, not to their purchasing power. Granting that "the purchasing power" represents the ability to produce, or the amount of energy that can be devoted to manufacturing a certain article, he maintains, that "there are certainly a million idle men very anxious to devote their energy to production." It may be true, and I believe it is true, that there are many people anxious to work who cannot find employment or if they find employment, they cannot find that kind of employment which they would like to have, and for which they are best fitted. This being granted, how can the evil be

cured through the appropriation of all capital by the nation? Why does not Mr. Orchardson rather suggest the establishment of agencies to bring the people into those places where their work is in demand? If the capital in our country were really so unlimited, as the Nationalists suppose it to be, why does it not employ all the idle men out of work? Capital would gladly employ as many men as possible, for capital cannot afford to remain idle without ceasing to be capital. Capital is in the same predicament as is labor; if it lies unemployed it brings no returns.

If all our capital were managed by the government, it is not certain that it would be administered as economically as if when owned and employed by private individuals. A capitalist whose income is larger than his expenses, invests the surplus and makes it profitable again for further production and a wider employment of labor. His own interest urges him to do so. Yet the government which lives on taxes, hoards up large sums without using them, and sometimes wastes the sweat and the energy of its citizens. Valuable quantities of silver were stored up for years in Washington without being put to any use, and then again great amounts were squandered by imprudence and criminal negligence.

Our government is by no means an exception; other governments, even those which are famous for the honesty with which they administer their affairs, are not better in this respect.

Travelers visiting Dresden have perhaps noticed a large area of vacant land on the banks of the river, opposite Brühl's Terrace. This land belongs to the Saxon government and is the place on which stand old dilapidated barracks. The new barracks were to be built on the hills northeast of Dresden; and some years ago, a building association of private individuals offered to build them in exchange for that patch of land on the banks of the river. They calculated that this land in the centre of the city, if properly improved, would become the most desirable place for fashionable residences. The Saxon government seeing that this plan was a good idea, undertook the scheme on its own account. It built the new barracks, out of taxes, and paid a higher price than was expected. That valuable land, however, lies as waste in the very heart of the city even to-day, as it ever was. The nationalization of capital, if it were possible, would be the financial ruin of our country.

* * *

Almost all the people who have a pet idea of reform upon which they look as a social panacea, believe that their case is proved if they point out deficiencies in the present social state. We are told that there are dishonest politicians, that some laborers do not receive their fair wages, that others do not find employment, that there are burglars breaking into our houses, that many diligent workers, farmers, inventors, thinkers, poets, have to struggle hard in life to make a fair living. And because these things are facts, the nationalist imagines that they need but be pointed out in order to prove that a nationalization of all property and enterprise would do away with all these evils. In the same way the anarchist maintains that the abolition of all government is the patent medicine that will cure our social evils.

The national government in Mr. Bellamy's state of society is supposed to be perfect. All incitement to crime, it is maintained will cease as soon as all land, all capital, and all power are nationalized. There will be no political parties, because all citizens are good, and being good, they are of one opinion. There will be no corruption in politics, for corruption is supposed to be impossible. All this is a bold assumption which remains to be proved.

Even the best governments are fallible and experience teaches that they must be constantly watched. Not without good reason has it been said that the power of the government ought to be limited to a mere administration of the common affairs of the citizens. The government ought to interfere with the liberties of its citizens

as little as possible; and indeed that government is best which is noticed least. It may be true that those common affairs in which all citizens are equally concerned, because they serve the common weal, such as the administration of the post-office, are better carried on by the government than by private individuals. But actual experience in Chicago and other cities proves that although the government may be able to carry the mails, it cannot build a post-office that will last ten years. Functions of mere administrative character are best performed if everything goes in the same old rut every day. Rarely an innovation is necessary; and the more machine-like the work is carried on, the less friction will be produced.

Matters are different in industrial enterprises where it is necessary to adapt old systems to new inventions and where competition demands progress under penalty of ruin. The government always makes a poor merchant, and has never as yet been successful in industrial enterprises.

The truth of these facts is well known and some people go so far as to believe that governments are mere nuisances, that their interference is the cause of all evil and that a perfect state of society can be attained only through the abolition of all government. This is the very opposite error of Nationalism. A leading anarchist of Chicago says that "every step forward has been at the expense of authority by increasing the area of voluntary actions," and the goal of progress, he declares, must be "individual sovereignty."

When anarchists teach the sovereignty of the individual, we have to inform them that society is an organized whole. The individual is what he is through the community only, and he must obey the laws that govern the growth of communal life. The more voluntary this obedience is, the better it is for the community as well as for the individual himself. But if the individual does not voluntarily obey the laws of the community, society has the right to enforce them. There is no such thing as sovereignty of the individual.

Anarchism is just as one-sided as Nationalism, only in the opposite direction. In some respects both are right, but in others both are wrong. The ideal state of society is a combination of the hopes of both parties; it is a state in which there is as much order as possible and at the same time as much individual liberty as possible. Wherever a nation is developing in the line of progress, we shall always notice an increasing realization of these two apparently antagonistic principles—liberty and order.

If it were true that "the villain is the fittest to survive," as Mr. Orchardson again maintains, how is it that our moral ideals have been progressing from century to century? In spite of some occasional relapses, we must acknowledge that man's conscience has become more and more educated and refined. If Mr. Orchardson's view were true, that "virtues become rudimentary," humanity ought to degenerate from age to age, and the accumulated result of natural selection ought to be a race of bottled scoundrels. Did not Mr. Orchardson, with all his benevolent intentions for the human race, survive also? Or does he consider himself a remnant only of paradisaic virtue? I should not wonder at all, if he explained the fact that humanity is not as yet disposed to accept nationalism from the deterioration of mankind, which has been so depraved in the state of "wolfish" competition.

It is time for humanity to understand that the ideals of socialism and of anarchism will lead us back to the primitive state of savage life, unless they are realized both at the same time. The realization of two ideals apparently contradictory, is possible only through educating mankind to that state of society in which the moral man only will survive. But let us bear in mind that one moral quality of great importance is the proper usage of money, neither to be a miser nor a spendthrift.

It is no uncommon experience that many people are unable to

regulate properly and proportionately their economical affairs; they spend what they have to-day and do not think of to-morrow. This is a lack of foresight which makes them unfit for a state of independence; and it is sure that many of the differences in possession (although not all differences) are to be derived from this difference of character. When you observe on a steamer the poor emigrants among the steerage passengers, I believe that if you are able to read their characters, you may predict their future fates. The frugal artisan will make his way in the new home, although he may have a few dollars only left on his arrival in New York, yet the discharged lieutenant who left the old country for debts, in spite of a few hundred dollars cash, will soon go to the wall.

Let me call attention to an example from history: The exiled Huguenots saved almost their bare lives only. They arrived in the different places of refuge in wretched poverty. Yet, wherever they went, they very soon succeeded in whatever they undertook, for they were industrious, intelligent and economical. They were men of independent mind and strong character.

Nationalism will never be able to educate people into self-reliant, independent men. It will make of free citizens human cattle, provided for with food and shelter, and put to work by the national board of management. But as soon as a state of society is reached in which there are only prudent, self-reliant and independent men, and in which the immoral man is unfit to survive, humanity will no longer be in need of the panacea of Nationalism.

NOTES.

The admonition of Shakespeare, "Put money in thy purse," is one of the wisest bits of advice that ever came from his bounteous philosophy. He forgot however, having many things on hand, to show some easy way of doing it. This carelessness has happily been corrected by the finance reformers and inventors of our own day. They have plans to put money into all our purses; and much space is given in the reform journals to their solutions of the "Money question": expansion and contraction of the currency, National bank monopoly, and similar themes. Some of them want soft money, others hard money; a few of them prefer dear money, although most of them want it cheap; but they all want money. Some of the most enthusiastic explorers of this financial wilderness would not only expand the currency but the banking system too. "Give banking greater freedom," they exclaim, "so that we may all be bankers. Why should a tax of ten per cent. be laid on private bankers? Let any man issue money who desires to do so. Let banking like other things be free."

Most of the financial reforms to which I have referred have a "Wild Cat" look, and the reformers regard the quantity of the "circulating medium" as more important than its quality; a dangerous mistake made more visible to me by the light of an old newspaper which I have rescued from oblivion, and which is dated May 1, 1857, a period when banking was more free. In this venerable back number I find a suggestive advertisement under the following title, "List of solvent, uncurrent, and broken banks—corrected daily by Finley, Burton, and Co., Bankers." This "list" is an instructive reminder of the circulating medium furnished in the days when banking was more free. This tell-tale catalogue informs the reader that Connecticut had seven "broken banks" the names of which are given; Delaware had two, while the banks of the District of Columbia are quoted as "all worthless except two," and the "money" of these good ones was quoted at a discount of five per cent. Georgia banks were "all worthless except eighteen," and these were at five per cent. discount. In Illinois eight banks are marked "uncurrent," the discount ranging from five to fifteen per cent. For Indiana the list gives all the solvent banks, and significantly says, "all others are at a discount

varying from twenty-five to seventy-four per cent." Kentucky had three "broken" banks. The banks in Louisiana are quoted as "all worthless except eight," the names of which are given. Maine had sixteen broken banks and one "uncurrent," Maryland had five broken banks and Massachusetts six. The banks in Michigan were "all worthless except five." New Hampshire had two broken banks, and New Jersey eleven. New York City had ten "broken" banks and New York State had twenty-nine. Ohio had nine broken banks and Pennsylvania eight. Rhode Island had four broken banks and three "uncurrent." In the "list" we find North Carolina, South Carolina, and Tennessee quoted together, and the solvent banks of those states were at a discount of five per cent. Virginia seems to have been in fair credit; her "solvent" banks are quoted at par, and she had only one "broken."

* * *

There is a good lesson in monetary science to be learned from that ancient advertisement of Messrs. Finley, Burton, and Co. The weight of it is increased by the fact that even the "solvent" banks were only solvent when last heard from; Messrs. Finley, Burton, and Co. do not vouch that they will remain so until next morning, for their list is "corrected daily," and at the bottom of it is the following caution: "Note—Bank of Newcastle, Pa., reported failed. Bank of Ottawa, Ill., failed," and then comes a warning forefinger, thus, "Prairie State Bank at Washington, Ill., is again discredited at Chicago. It should be refused." I am not wasting any sympathy on speculators and rich men who were compelled to carry on their "operations" in this dubious currency; and, no doubt, even "business" managed to get along with this precarious and uncertain "money"; but the chief crime of it was that clerks, mechanics, and laborers were compelled to take it as wages, and at par. Some of them want it restored, that they may be paid in it again. I cannot explain this eccentricity any more than I can explain the hydrostatic paradox; I merely know of it as a fact for wonder, and leave it where I find it.

* * *

In looking among the surplus statesmanship at Washington, I have discovered plans and specifications for putting money into the purses of us all. I do not undervalue the pension schemes, which are a help, as far as they go, nor the River and Harbor method, nor the device of building a court-house and post-office in every village, and similar contrivances. They all have their merits, but they are not sufficiently comprehensive; they don't spend money enough. A more effective plan is that of Mr. Stanford, a Senator from California, who has introduced a bill into the American senate requiring the Secretary of the Treasury to loan money to farmers at two per cent. interest per annum. This would put money into the purses of all the farmers, but it leaves the rest of us outside the treasury. Still, as a help to the main object it is far more efficient than the Pension, Court House, and River and Harbor methods all put together. It is rather provoking that just after Mr. Stanford had explained his bill to the Senate, his friends held a consultation and decided that he ought to be "taken care of," and the newspapers inform us that he is now being taken care of accordingly. Another plan has been offered in a bill which, if adopted, will put money into the purses of a great many people, but unfortunately this also is for the exclusive benefit of the farmers, but it is valuable as far as it goes. By this plan the government is to establish great warehouses in all parts of the country. In these warehouses the farmers are to store their corn, wheat, pork, tobacco, cotton, or whatever it may be; and when stored, the government is to advance to the farmer eighty per cent. of the value of the produce. The defect in this plan is that eighty per cent. is not enough; but the bill can be amended in committee of the whole, and cent per cent, the proper amount, substituted. Eighty per cent. is evidently insufficient.

All the plans thus far advanced dwindle into insignificance when compared with the comprehensive statesmanship of Mr. Plumb, a senator from Kansas. He has introduced a bill which, if enacted into law, will put money into the purses, not only of the farmers, but of everybody. This bill provides for organizing "The Grand Army of Labor" on the following plan. The President of the United States is to issue a call upon all citizens to volunteer and serve in the Grand Army of Labor under the following conditions: the labor day is to be four hours, and the labor week five days; wages \$4 per day. This bill, as soon as it becomes law, will end the eight hour agitation; and, if passed at the beginning of the session, it would have averted the strike of the carpenters and the waiters of Chicago. The wages of the Grand Army of Labor are to be paid weekly, in the following picturesque currency, "the declaratory full-legal-tender silk-threaded greenback paper money of the United States of America." If there should not happen to be enough of it in the safe at any time, "the Secretary of the Treasury shall at once cause a sufficiency thereof to be prepared and covered into the treasury for that purpose." And he must be very particular to see that the greenbacks when "prepared" are of the "silk-threaded" kind, as no other will be received. Nothing is said in the bill about pensions, but, of course, they are understood, as it would be manifestly unfair to pension one Grand Army and not another. It is a little surprising that up to the receipt of the latest returns from Washington Mr. Plumb's friends had not had any meeting to decide whether or not he ought to be "taken care of."

M. M. TRUMBULL.

BOOK REVIEWS.

The leading article of *Mind* (Williams and Norgate: London), for the April quarter, "The Cerebral Cortex and its Work," by Henry Maudsley, is replete with valuable suggestions. Speaking of the fundamental idea or plan of the mental organization of the brain, Dr. Maudsley says: "The essential question is not whether mind does this or that, nor whether this or that has mental quality, but what it is which direct and unbiased observation proves the nervous system to do of itself, with or without the accompaniment of consciousness, what such performances actually are and signify, and what is the proper language to use in order to describe them." It is this objective stand-point that characterizes Dr. Maudsley's article throughout. The conclusion at which he arrives is, "That no part of the so-called motor region of the cortex really is directly motor, but that its whole represents the specialized movements at higher removes, and that such abstracts of movements or motor abstracts are the out-tending or efferent aspects of the cortical reflexes which all our thoughts are. In mental apprehension is contained the understood fit responsive movement to fit impression which is expressed actually in bodily apprehension." Mental operations, he says, can be carried on "without help or accompaniment of will or consciousness, so it can accomplish broken or disordered purposes when consciousness and will are not only powerless to prevent disorder, but powerless to hinder themselves from being enthralled in obsequious conformity of disorder. In neither case are consciousness and will the actual agents; they are derivative, not original, exponents or indicators of what is being done, not the doers of it."

In the same periodical Mr. G. Santayana discusses "Lotze's Moral Idealism." Mr. Santayana quotes the opening sentence of the "Microcosmos," namely, the saying of Lotze, that "between the demands of our emotional nature and the results of human science there is an ancient ever-raging strife," and remarks that "whatever value Lotze's incidental contributions to logic and psychology may have, his answer to this moral question is doubtless the most important and interesting part of his system."

"If we cannot have omniscience," says Mr. James Ward in the remaining independent essay of this magazine, "then, what we want is a philosophy that will justify faith." He quotes the famous passage from Kant, who says: "I must remove *knowledge* in order to get room for *faith*;" and concludes: "two opposite speculative hypotheses present themselves, which I must be content to designate as the religious and the non-religious. Neither, from the nature of the case, can logically refute and silence the other. The future of philosophy depends on the issue between these opposite hypotheses; and what I would suggest is that that issue will in turn depend on the practical results to which the two lead. It will be a case of the survival of the fittest."

In the department entitled "Discussion," the editor of *Mind* writes upon Dr. H. Münsterberg's theory of Apperception—researches previously referred to in *The Open Court*; Mr. W. L. MacKenzie, on "Prof. Burdon Sanderson on Physiological Method"; Mr. L. T. Hobhouse, on "Experimental Certainty"; and Mr. J. Solomon on "Is there an *a priori* knowledge?" Mr. James Sully's review of Guyau's *L'Art au point de vue sociologique* is a noteworthy production.

In the *Revue Philosophique* (Paris, Félix Alcan), for April, M. A. Fouillée concludes his series upon "L'Evolutionnisme des Idées-Forces;" he here discusses the "Practical Consequences of the Theory." What M. Fouillée understands by an "idea-force" is an idea that—as contradistinguished from the reflective and perceptual idea—is possessed of some kinetic power, an idea that is active and efficient. In the sense that there is an element of motion, an impulse to action in every perceptual representation, all ideas possess vestiges of this quality; but the *idées-forces* proper, according to M. Fouillée, are such general concepts as "Humanity," "Fatherland," and the like, that have inspired armies and nations. The *Revue* also contains the following articles: "Un Vieil Argument en faveur de la Métaphysique," by J. J. Gourd; "La Responsabilité Morale des Criminels," by Louis Proal; and a general review interestingly and lucidly written, by L. Arréat, on "Recent Works Upon Heredity." The usual excellent critical notices and résumés close the number.

The Proceedings of the Aristotelian Society (London: Williams and Norgate), Vol. I, No. 3, Part I, contains articles of high interest. First, Dr. Shadworth H. Hodgson, the President, discusses with characteristic ability the question "What is Logic?" He says: "The aim or purpose of Logic is not simply to reason, nor even to reason well, but to test the validity of reasoning, by a return upon itself, and a reference to its own laws. Logic in its processes, syllogism included, is not directly engaged in discovering facts or laws of Nature; that is to say, is not a Method of Discovery. Logic is thought engaged, not in following the Proteus-changes of Nature, but in watching its own steps in following them." Mr. Bernard Bosanquet, contributes a paper upon the "Aesthetic Theory of Ugliness." The *Symposium*: "Is there Evidence of Design in Nature?" is particularly important. The Rev. Dr. Gildea represents the orthodox view of the omnipresence of intelligence in nature; Mr. S. Alexander represents the directly opposed view; and Dr. G. J. Romanes takes the critical-agnostic and conciliatory stand-point. Mr. Romanes says: "I am not ashamed to confess that in my own individual case, I do not perceive any evidences of Design in Nature the value or cogency of which I am in any degree able to estimate. But this does not hinder me from perceiving that to anybody else in whom some antecedent belief is strong, there may be—and, indeed, must be—an immense body of such evidence, the cogency of which will vary with the strength of such belief. The one man is as logically justified in seeing evidence of design, as the other man is logically justified in not seeing it. The point of view having been changed,

the whole prospect is correspondingly modified. The question, 'Is there evidence of Design in Nature?' has been referred from the lower courts of objective fact to the supreme courts of subjective personality; and there it stands to be decided by each man for himself at the tribunal of his own judgment."

THE KNOWABLE.

BY J. A. HARRIS.

How little know we of what's ill or well;
How little of life's wondrous rushing tide,
Its shoals, and pools, and cataracts, and streams—
Whose never ceasing course moves grandly on
To that mysterious sea, whose peaceful strands
The feet of those with us have never trod.
This throbbing moment of existence here;
This dream of hopes and fears, and love and pain;
This shadowy verge of slowly crumbling time,
Is but a transient struggling ray of light,
A flash, expiring in the midst of gloom
That fails to reach those mystic shores beyond,
What is it that we call the knowable?
How seen through these poor blurred orbs of ours?
How known so any language may express?
May not the soul-sense of this mystery,
Moving our lives in harmony with God,
Some day assist us to discern the truth?
We only know the vision of past deeds;
The gleam of fleeting clouds across the sun;
The echoes of the murmuring waves of sound
That roll and vibrate in the darkness here:
But yet, methinks there's something else we know—
That Justice, Truth, and Love, prevail at last.

BOOK NOTICES.

We are in receipt of *The Proceedings of the Rhode Island Historical Society* (Providence). We are glad to note the variety and universality of the topics discussed in the recent meetings of the Society.

Prof. Georg von Gizycki of the University of Berlin, has recently translated into German five new ethical lectures of Mr. W. M. Salter. They are comprised in a tastefully printed pamphlet of ninety-three pages. Prof. Gizycki pays a beautiful compliment to the work of Mr. Salter in his preface, and has given proof of his high opinion by an appreciative translation.

The Cradle of the Semites was the subject of two papers recently read before the Philadelphia Oriental Club, by Dr. Daniel G. Brinton and Dr. Morris Jastrow, of the University of Pennsylvania; the papers have been published in pamphlet form. Dr. Brinton's view is that the Asiatic Semites emigrated "not directly from Europe, but along the southern or African shore of the Mediterranean, from some region near its Western Extremity."

We have received the twenty-third volume (Vol. III, Fourth Series) of *The Proceedings of the Royal Malacological Society of Belgium* (Brussels: Weissenbruch; price, twenty francs). The volume is supplied with a good steel portrait of Francois Leopold Cornet, geologist and mineralogist, a biographical notice of whom forms the first part of the "Proceedings." The work of the Society—of too special a character for analysis in our columns—is exhaustive in scope. The plates at the end of the volume are excellently executed.

We have received from Colombo, Ceylon, (61 Malabon st.) a copy of a little eight-paged weekly periodical entitled *The Buddhist*, a supplement to the *Saravaliandara*. Its contributions are pleasantly and intelligently written, and are marked by sober-

ness and sense. A translation, by the competent hand of Mr. Edwin Arnold, of Chap. I of the Dhammapada (a compilation of verses dating from the first great council of the Buddhist Church) appears; from which we quote one or two stanzas of very present significance:

"Whoso abides, looking for joy, unschooled,
Gluttonous, weak, in idle luxuries,
Māra will overthrow him, as fierce winds
Level short-rooted trees.

Whoso imagines truth in the untrue,
And in the true finds untruth—he expires
Never attaining knowledge: life is waste;
He follows vain desires.

Whoso discerns in truth the true, and sees
The false in falseness with unblinded eye,
He shall attain to knowledge; life with such
Aims well before it die.

As rain breaks through an ill-thatched roof, so break
Passions through minds that holy thought despise:
As rain runs from a perfect thatch, so run
Passions from off the wise.

The evil-doer mourneth in this world,
And mourneth in the world to come; in both
He grieveth. When he sees fruits of his deeds
To see he will be loath.

The righteous man rejoiceth in this world
And in the world to come: in both he takes
Pleasure. When he shall see fruit of his works
The good sight gladness makes.

Glad is he living, glad in dying . . ."

Scribner's Magazine for June is a Stanley number, containing the only article which he will contribute to any periodical, and the first authoritative word from him on many of the most important features of his great expedition for the relief of Emin Pasha.

On the invitation of the Board of Trustees of the Society for Ethical Culture, Dr. Paul Carus will deliver a course of three lectures on the Ethical Problem, at Emerson Hall, 45 Randolph Street, Chicago, on the first, second, and third Sundays in June at 11 A. M. The first lecture on June 1st, will discuss the question, "Is Ethics a Science?" the second, on June 8th, will treat the "Data of Ethics," and the third, on June 15th, "Theories of Ethics." Seats free, and all interested in the topic, are invited.

We are in receipt of the *Programme of the Philosophical department from Harvard University*, announcing the courses of study for 1890-1891. The programme is exceedingly rich and promises to be very instructive. Ethical, psychological, and kindred topics of practical interest receive great prominence. Professor James will, together with his advanced students in his psychological seminary, study the Psychology of the Feelings, including the subjects of pleasure and pain and what is known as Aesthetics. Professor Peabody will arrange a course on "The Ethics of the Social Questions," Charity, Divorce, the Indians, Temperance and the various phases of the Labor Question. The course will consist of lectures, essays, and practical observations. The professor will with his students inspect hospitals, asylums, industrial schools of the neighborhood, and the various labor organizations, coöperative and profit sharing enterprises and movements of socialism, temperance, etc., within their reach. Professor Royce will lecture and discuss theses on Cosmology. His subject will include the principal problems of the Philosophy of Nature, with special reference to the modern doctrine of Evolution. Professor Palmer will set problems for research on Questions in Ethics to his students; but he also allows them to be proposed by the student himself. Fixed hours for meetings are not assigned, as it is wished to give the student the utmost freedom in methods of work. But the instructor will be ready for consultation at any time, and a definite exhibition of results will be expected in February and June.

The Open Court.

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GOD.

Who is God and what is God? is a question that is raised by both religious and irreligious people; and most different answers are given. Every one of us has perhaps his own and peculiar opinion about God; some of us are theists, some pantheists, some atheists, and there are in the history of religion and philosophy, so far as I can judge, not two thinkers who fully agree upon the subject. Shades of differences are visible everywhere.

I do not intend to discuss any one of the many conceptions of God; nor do I intend to preach either Theism, or Atheism, or Pantheism. All I ask is the use of the word God in the sense of "the ultimate authority in conformity to which man regulates his actions." Of those who allow their actions to be determined by the first impulse that comes over them, I would say, that whim is their God. Those who are swayed by egotism, we say that self is their deity. There are others whose sole principle of conduct is the pursuit of pleasures: their God is happiness. Others still may possess a moral ideal; the endeavor to be obedient to their duties: their God would be duty.

After this preliminary definition of God, we put the question: Is there any way of ascertaining the nature of God, so that all men of different opinions may be led to the recognition of one God, who is the only true God, beside whom all other Gods are mere idols? In other words, Is the authority in conformity with which man regulates his conduct merely his private pleasure, is it purely subjective in its nature, or is it a power that is above us, that is mightier than ourselves, that enforces obedience and wrecks those who dare to disregard it? Is that saying of Antisthenes true, "The Gods of the people are many, but the God of nature is one?"

The answer to this question is simple, and can easily be deduced from experience. I cannot at all act as I please, but have to regulate my actions according to the facts of nature. If I attempt to walk on the water I shall sink; if I try to fly from the top of my house to the roof of my neighbor's house across the street, I shall fall. Natural laws will not be altered on my account, and I shall not be able to fashion them so as to suit my purposes. However, I can

accommodate myself to the facts of nature, I can obey the natural laws, and if I do so, it will be to my own benefit. The more intimately man is acquainted with nature, the more perfectly he adapts himself to the order of nature, the wider will be his dominion. In the measure in which he becomes more obedient to the authority of natural laws, the more powerful, the more independent, the more free will man be.

Schiller said:

"Within your will let deity reside and God descendeth from his throne."

(Nehmt die Gottheit auf in euren Willen und sie steigt von ihrem Weltenthron.)

The natural laws of the physical world, gravitation, mechanical laws, physical laws, biological laws, may appear to the present generation plain and palpable facts of nature, yet it took centuries to sum up the facts in laws and to state some of them in simple terms. The men who succeeded in stating them in simple terms were prophetic geniuses, such as Copernicus, Kepler, Galileo, Newton, Huyghens, Darwin, and others; the results of their labors are discoveries of a divine inspiration, and are a revelation of the eternal and universal order of nature.

Besides the physical laws of nature, there are the sociological laws that prevail in the higher kingdoms of living organisms, and in the societies which greater numbers of single individuals unite. Every one of us is a member of a community; and again all the communities of human beings are closely bound together, however great the distance in which they dwell, by certain relations, by common interests, and mutual sympathies. These sociological laws are not a product of well calculated intentions, but they are of a natural growth; the evolution of the social affairs of mankind is deeply rooted in the conditions of things.

Now every fact of science stated as a law has its practical side; it teaches us how to behave in certain conditions. There is no knowledge but it can be framed in the shape of a moral command. The tables of arithmetic are mere statements of fact; but every one of them is a most valuable ethical law: it is a guide for our actions and a rule of conduct.

Every child knows that the ethics of arithmetic cannot be changed, it is a sovereign power above us. Yet we can make that royal authority descend

from its throne by obedience to its behests, we can adapt our calculations to it, and thus we shall partake of its sovereignty. The more accurately and the purer truth dwells in our minds, the more will our souls grow divine, and the more will we bear in ourselves the image of God. There is no knowledge that does not make us purer, and no correct application of knowledge that does not make us more divine. But among all the natural laws that it behooves a man to know and to obey, are the laws of human life, the relations among human beings, and the aspirations of human ideals. It is here where the revelation of God appears in its grandest, its most beautiful, and its holiest form.

How many people are there that understand that these laws are no less cogent and irrefragable than the laws of the multiplication tables! How many imagine that they can break these laws with impunity. Let us do evil, they say, that good may come from it.

The prophet Hosea says: "People are destroyed from lack of knowledge," and these words are true even to-day. People injure themselves and others mostly from ignorance and from ill-will, which is a necessary result of ignorance. Would not the brute cease to be brutish if it were endowed with human reason?

Let us open our eyes to see and prepare our minds to learn the ordinances of the divine authority that shapes the destinies of our life. The better we observe them, the clearer we understand them, and the more promptly we obey them, the sweeter will be the blessings that come upon our lives, the greater will be the advance of humanity, and the nobler will appear the divinity of mankind.

THE DERIVATION OF THE WORD 'GOD.'

BY CALVIN THOMAS.

READERS of Matthew Arnold will recall the entertaining chapter of his book "God and the Bible," in which he discourses upon "the God of Metaphysics." Arnold here tells how, after being perplexed beyond endurance by the philosophical jargon of 'essence,' 'being,' and so forth, he set out in desperation to find some one who would tell him what 'being' really is. Such a kind soul, so he says, he found in the person of the late Prof. Georg Curtius of Leipzig, whose "Principles of Greek Etymology" gave him the assurance that the Indo-European root *as*, from which 'essence' is derived, meant originally 'to breathe' and that the root *bhu*, from which 'being' comes, meant 'to grow.' And then follows some of Arnold's inimitable persiflage at the expense of the metaphysicians, the point of it all being to enforce the importance of having clear ideas about the words one uses and of not being deceived by high-sounding terms which only represent the last stage in a process of ab-

straction that began with a concrete physical concept. This point is certainly well taken; one can freely say 'amen' to it even though he may think that Arnold himself puts good counsel to a dubious use when he makes it lead up to the proposition that "the Hebrew people and Hebrew history *begin* with a religion of soberness and righteousness," and then tries to persuade us that Israel's tribal God Jahveh was felt from the beginning merely as an "Eternal not ourselves that makes for righteousness." Beyond doubt a large part of human disputing has underlying it a word not clearly understood or used by the disputants in different senses. Hence arises, as all thoughtful persons know, the importance of scrupulous care with regard to the terms one uses in any discussion. At the same time we should be on our guard against making too much of an etymology. Etymology does not give us, as the name implies, the 'true,' but only the original, meaning of a word, and can never be a court of final appeal against usage, which is itself the supreme arbiter. Thus if it were quite certain, instead of being very uncertain, that the Indo-European root *as*, or as we now write it *es*, originally meant 'to breathe,' that certainly does not even tend to show that ontology is humbug, any more than the original meaning of the root *bhu*, whatever it may have been, can prove that the abstract conception 'being' is worthless in philosophy.

But while we should not appeal to etymology, or should only appeal to it very cautiously, for the purpose of discrediting any fact of usage, etymology has an interest of its own and is often highly suggestive. This is particularly apt to be the case with widely disseminated culture-words that have a long and varied history behind them. Let me illustrate this observation by a brief inquiry into the origin of the word "god."

If we consult any of the older lexicographers we shall find them, as a rule, taking it for granted that 'God' comes from 'good.' Thus Skinner (1671) tells us that 'God' is 'good'; *Bonus, quod dicit Bonum in abstracto*. So in Bailey's dictionary (I quote from the late edition of 1763), we find the statement that "'God' is a Saxon word which likewise signifies 'good.'" "The same word," he adds, "passes in both senses with only accidental variations through all the Teutonic dialects." This statement was copied by Dr. Johnson, whose authority helped to perpetuate the etymology. Subsequently we find it in many places; it is quoted without dissent in Richardson's dictionary, edition of 1863. So far as I have noted Webster was one of the first to express doubts with regard to this derivation. His comment was, as far back as 1832, that the idea of naming 'God' from 'goodness' was probably "remote from the rude conceptions of men in early ages."

To the scholarship of the present day, it is perhaps hardly necessary to say, this etymology appears quite out of the question. Webster's objection is valid, and would be alone sufficient, but there is another still more cogent, and that is the fact that the words 'God' and 'good' are never identical, the former having originally a short vowel, the other a long. This was to Bailey an "accidental variation," not worth paying any attention to, but nowadays it is a serious matter. As for the later and better authorities, they are for the most part non committal, and treat the word as an unsolved puzzle. This is the case, for example, with Skeat. Of late, however, a derivation has been proposed which has already found its way into some of the books, notably the admirable German dictionary of Kluge, and which seems to me to have everything in its favor. I proceed to explain it.

The word 'God,' be it observed first, is a Germanic word; it has no known cognate of similar meaning in the Latin, Greek, Sanskrit, or any other Indo-European language. (I pass by as untenable the attempt of some to connect it with an alleged Sanskrit *gudha*, meaning 'mystery,' or with a Persian *kodha*, meaning 'master'). Our earliest acquaintance with the word is naturally obtained from the Gothic, where it is of frequent occurrence in the form *guth* (*th* as in *thin*), which is in reality a neuter noun, though it is used as a masculine when it refers to the God of Christianity. It occurs also as a plural in the form *guda*, e. g., in John 10, 34: *ik gath, guda sijuth*, 'I said, ye are gods.' The *d* in *guda*, as regularly between vowels, was pronounced as *dh*, by which I mean the English *th* in *this*. Now as this *dh* regularly becomes *th* when brought to a position at the end of a word, we readily conclude that the real gothic form of the word was *gudh*. In compounds the stem of the word appears both as *guda*- (*guda-lauss*, 'godless,') and as *gutha*- (*gutha-skaunei*, 'form of God'). In Old Icelandic the circumstances are almost exactly parallel. The word appears in the form *gudh*, more rarely *godh*, as a neuter, and usually in the plural, in the sense of 'idol,' but is treated as a masculine when applied to the God of Christianity. As to the Old English and German forms, they have no further instruction for us and need not be quoted.

What now was the real meaning of this neuter noun which our remote ancestors upon becoming Christian found most available as an equivalent of the Greek *ὁ θεός*, and the Latin *deus*? It is to be remembered that the real meaning of these words was not apparent, in fact is not known with certainty even now. *Deus* is quite likely the same word as the Sanskrit *deva*, 'a god,' and that may come from *div*, 'the sky'; but the alleged root *div*, 'to shine,' which has played such an important rôle in the literature of this

subject does not exist. As for *θεός*, it very certainly has nothing to do with *deus*, and no satisfactory etymology of it has been proposed. How then were the Germanic tribes upon becoming Christian to express *ὁ θεός* in their language? They had their gods, but none of their familiar divine names were available, and we may doubt if they had reached anything corresponding to the abstraction *ὁ θεός*, which had first been worked out by the Greek philosophers, and was then taken from their language into the Greek of the New Testament instead of Jehovah, Adonai, Elohim, or any of the older Hebrew names. We find that what they did was to take their neuter noun *gudh* and treat it as a masculine. What did this word mean?

A Germanic neuter *gudh* would correspond to an ideal Indo-European *ghu-tō-m*, and such a word, if it ever existed, would appear in Sanskrit in the form *hutam*, in Greek as *χρ-τό-ν*. Now we actually find in Sanskrit a root *hu* meaning 'to pour or cast into the fire,' 'to offer as sacrifice.' *Hutam* means 'oblation,' 'sacrifice,' with which is to be compared the Greek *χρ-τό-ς*, 'poured' and *χρ-σι-ς*, 'pouring.' This certainly does not help us much, but let us look a little further. While the Germanic *gudh* has a short vowel, we can not be sure that that quantity was primitive; it may have been shortened from a long vowel as has happened in other cases. In other words it might come from a proethnic Indo-European *ghū-tō-m*, which in turn would give a Sanskrit *hū-tām*. And now light appears. We actually find in common use in Sanskrit a root *hu*, having the meaning to 'call on,' 'invoke'; *hūtam* means 'thing invoked,' 'object prayed to.'

Thus it is to be regarded as highly probable that the word "God," notwithstanding all the exalted associations that have gathered about it in the process of the ages, goes back to a period when our Germanic ancestors worshipped stocks and stones.

DISCOVERIES OF THE VEDA BY THE CHINESE, PERSIANS, CHRISTIAN MISSIONARIES AND SCHOLARS.*

BY PROFESSOR F. MAX MÜLLER.

THE first people who give us authentic information about the Veda are the Chinese. There exists a curious prejudice against the Chinese. We do not look upon them exactly as they look upon us as 'Outer Barbarians.' But we find it very difficult to take them, as the French say, *au grand sérieux*. They seem to us queer, funny, not quite like other people—certainly not like Greeks and Romans, not even like Indians and Persians. And yet when we examine their literature, whether ancient or modern, it is by no means so very different from that of other nations. Their interests are much the same as ours, and there is certainly no lack of seriousness in their treatment

* From a Report in the London *Christian World*, copies of which were kindly sent us by Prof. Max Müller.

of the highest problems of religion, morality, and philosophy.

There are in China three religions, that of Confucius, that of Laotza, and that of Buddha. Confucius and Laotze lived both in the sixth century, B.C. They were, however, restorers rather than founders of religion. The religion of Buddha reached China from India about the beginning of our era. These three religions have had their controversies, and their hostile conflicts. But all three are now regarded as recognized systems of faith in China, and the Emperor of China is expected to profess all three, and to attend their special services on great occasions.

Here we are at once inclined to smile, and to doubt the seriousness of a religious faith that could thus conform to three systems so different from each other as Confucianism, Taoism, and Buddhism. We pride ourselves on attending the services of none but our own sect or subdivision of the great divisions of Christendom. We are apt to suspect indifference, latitudinarianism, or scepticism in any member of the Church of England attending the communion of any other Christian sect. But the official attendance of the Emperor of China in the temples of Confucianists, Taoists, and Buddhists admits of a very different interpretation also. May it not show that the wisest of their statesmen had recognised that there was some truth, some eternal truth, in every one of these three religions: that the amount of truth on which they all agreed was much greater and much more important than the points of doctrine on which they differed, and that the presence of the Emperor at the sacrifices of the three religions of his subjects, was the most efficient way of preaching tolerance, humility, or, if you like, Christian charity. We are but too ready to judge heathen nations without considering how much of charitable interpretation we have to claim for our own acts.

How serious a Chinaman can be about his religion you will be able to gather from the lives of those Buddhist pilgrims to whom we owe the first authentic account of the Veda. Why did these pilgrims go from China to India—a journey which, even now, is considered by geographical explorers as one of the most perilous, and, as requiring no less of human endurance and bravery than Stanley's exploration of Africa? They went there for the sake of their religion. India was to them their Holy Land. Buddhism had reached China at the beginning of our era from Northern India, and to visit the holy places where Buddha had been born, had lived, taught, and died, was as much the dream of a devout Buddhist in China as to visit the Holy Sepulchre at Jerusalem was the dream of many a poor palmer and many a valiant Crusader in Christendom.

We possess the descriptions of these Buddhist pilgrimages, extending from about 400 A.D. to 1000 A. D. The most important are those of Fā-hian, 399-414, Hiouen-thsang, 629-645, and I-tsing, 673-695. Their works have been translated into French and into English, too, by Stanislas Julien, Professor Legge, Dr. Beal and others. I shall give you a short account of one of these pilgrims, Hiouen-thsang, partly because he bears witness, not only to the existence of the Veda, but to the influence which at that time the Veda still exercised in India; partly because his life shows better than anything else how serious these Chinese can be when their religion is at stake.

While the companions of Alexander had no eyes to see the existence of sacred books, such as the Veda in India, the Chinese pilgrims not only gave us the name of the Veda, but they actually learnt Sanskrit, and they were able to point out the differences between the literary Sanskrit and the more ancient Sanskrit used in the Veda.

Hiouen-thsang undertook a pilgrimage to recover the "Law which was to be a guide to all men and the means of their salvation." After overcoming almost insuperable difficulties, the pilgrim at length reached India. Shortly after he heard of an extraordinary cave where Buddha had formerly converted a dragon, and had promised his new pupil to leave him his shadow, in order that whenever the evil passions of his dragon-nature should revive, the aspects of his master's shadowy features might remind him of his former vows. Although the road leading to the cave was infested with robbers, Hiouen-thsang resolved to see it, remarking, "It would be difficult during a hundred thousand Kalpas to meet one single time with the true shadow of Buddha; how could I, having come so near, pass on without going to adore it?" The pilgrim easily overcame the bandits whom he met, and after offering many prayers in the cave he was at last rewarded by seeing the shadow of Buddha, a dazzling splendor lighting up the features of the divine countenance. When Hiouen-thsang returned to his native land, he carried with him, among other trophies, a collection of 657 works in 520 volumes, to the translation of which he devoted the remainder of his life. At the approach of death, he had all his property divided among the poor, and then took farewell of his friends with the words: "I desire that whatever rewards I may have merited by good works may fall upon other people. May I be born again with them in the heaven of the blessed, be admitted to the family of Mī-le, and serve the Buddha of the future who is full of kindness and affection."

The world owes to Al-Biruni—a learned astronomer and astrologer who was carried off from India about 1000 A. D. by Sultan Mahmud of Ghazni—the

first accurate and comprehensive account of Indian literature and religion. In 1795 a Persian translation of the Upanishads, the philosophical appendices of the Vedas, was rendered into Latin by Anquetil Duperron, and it was that translation which inspired Schopenhauer, and furnished to him, as he himself declares, the fundamental principles of his own philosophy.

Nothing shows more clearly the indefatigable industry, and at the same time the wonderful perspicuity of that great philosopher, than his being able to find his way through the labyrinth of uncouth Latin, and to discover behind the strangest disguises the sublime truths hidden in the Upanishads. Honest man that he was, Schopenhauer declared that his own philosophy was founded on that of the Upanishads. "From every sentence of these Upanishads," he writes, "deep, original, and sublime thoughts arise, and the whole is pervaded by a high and holy and earnest spirit. Indian air surrounds us, and original thoughts of kindred spirits. And oh, how thoroughly is the mind here washed clear of all early engrafted Jewish superstitions, and of all philosophy that cringes before those superstitions! In the whole world there is no study, except that of the originals, so beneficial and so elevating, as that of the Upanishads. It has been the solace of my life, it will be the solace of my death."

You see here again how thought is continuous, how, when it seems to disappear, it is still there; and how what has once been thought and expressed in powerful language, will go on and on in different forms and produce some good, and lead us nearer step by step to what we are all anxious for—the possession of truth.

At the court of Aurungzebe, 1658—1707, there were several European missionaries who took part in the religious and philosophical discussions of the time, and who ought to have been acquainted with the Vedas, if only by name. But it would seem as if the Brahmans were anxious to keep their sacred literature out of sight of any strangers. It was only when Christian missionaries began themselves to learn the classical language of the Brahmans, the so-called Sanskrit, that they became aware of the existence of the old sacred books, called the Vedas. We have a letter from Father Calmette, written from the South of India in January 1733, in which that missionary stated that his friends were not only well-grounded in Sanskrit, but were able to read the Veda. Father Calmette was evidently quite aware of the importance of a knowledge of the Vedas for missionary purposes, and of the immense influence which the Vedas continued to exercise on the religious convictions of the people.

After Father Calmette had got actual possession of the Vedas, and had succeeded, with the help of some Brahmans, in deciphering some chapters, it is most instructive to watch the bent of his thoughts, and of the thoughts of many of the early missionaries in India. He is not bent on extracting from the Vedas passages showing the depravity and absurdity of the ancient Indian religion, an occupation which some of our present missionaries seem to consider their principal duty. No; the very contrary. "Since the Veda is in our hands," he writes, "we have extracted from it texts which serve to convince them of those fundamental truths that must destroy idolatry; for the unity of God, the qualities of the true God, and a state of blessedness and condemnation, are all in the Veda. But the truths which are to be found in this book are only scattered there like grains of gold in a heap of sand."

What would some of the present Bishops in India say to this truly Pauline sentiment, to this attempt to discover in the sacred books of other nations some grains of gold, some common ground, on which a mutual understanding and a real brotherhood might be established between Christians and non-Christians?

The Brahmans themselves are quite aware of the existence of these grains of gold, and when accused of polytheism and idolatry, they themselves quote certain verses from the Vedas to show that even in ancient times their prophets knew perfectly well that the different gods invoked for different blessings were only different names of the Supreme Being. Thus they quote from the Rig-Veda: 'They call Indra, Mitra, Varuna, Agni, then there is that heavenly Garutmat with heavenly wings. The One that they speak of in different ways, they call Agni, Yama, and Matarisvan.'

This is a clear confession, if not of monotheism, at least of monism, for it should be remarked that the Vedic poet, when he speaks of the One that truly exists, the bearer of many Divine names, does not even venture to put it in the masculine gender, but calls it the *Ekam Sat*, the only Being that exists. Another well-known verse of a similar character is the following:

"He who is our father that beget us, he who is the creator,
He who knows all places and all creatures,
He who gave names to the gods, being one only,
To him all other creatures go, to ask him."

How strong a desire had been awakened in Germany for a real and authentic knowledge of the Veda, I learnt from my dear old friend, Bunsen, when I first made his acquaintance in 1846. He was then Prussian minister in London. He told me that, when he was quite a young man, he had made up his mind to go himself to India to see whether there really was such a book as the Veda, and what it was like. But

Bunsen was then a poor student at Göttingen, poorer even, I believe, than the poorest student in England or Scotland. What did he do to realize his dream? He became tutor to a young and very rich American gentleman, well-known in later life as one of the American millionaires, Mr. Astor. Instead of accepting payment for his lessons, he stipulated with the young American, who had to return to the United States, that they should meet in Italy, and thence proceed together to India on a voyage of literary discovery. Bunsen went to Italy, and waited and waited for his friend, but in vain. Mr. Astor was detained at home, and Bunsen in despair had to become private secretary to Neibuhr, who was Prussian minister at Rome. Brilliant as Bunsen's career became afterwards, he always regretted the failure of his youthful scheme. "I have been stranded," he used to say, "on the sands of diplomacy; I should have been happier had I remained a scholar." This was the origin of my own friendship with Bunsen. When I called on him, as Prussian minister, to have my passport *visé* in order to return to Germany, and when I explained to him how I had worked to bring out an edition of the text and commentary of the Rig-Veda from MSS. scattered about in different libraries in Europe, and was now obliged to return to Germany unable to complete my collection and copies of manuscripts, he took my hand and said, 'I look upon you as myself, young again. Stay in London, and as to ways and means, let me see to that.' Mind, I was then a young, unknown man. Bunsen had never seen me before. Let that be a lesson to young men never to despair.

Historical justice requires that Burnouf's merits should be fully recognized, because, owing to his being called away to Buddhistic studies, and owing to his early death, very little of his work on the Veda has come to the knowledge of the world, except through his disciples. First of all, Burnouf worked hard in collecting manuscripts of the principal Vedas, of their commentaries, and of other works necessary for their elucidation. He had persuaded Guizot, who was then Prime Minister in France, to provide the funds necessary for the acquisition of these manuscripts; others he had acquired at his own expense. With the help of these manuscripts he gained a wider acquaintance with Vedic literature than was possessed at that time by any other scholar. There can be no question whatever, that the founder of the critical school of Vedic scholarship was Burnouf, though he himself was the very last man to claim any credit for what he had done.

I had come to Paris to attend Burnouf's lectures, and with very vague notions as to an edition of the text and the commentary of the Rig-Veda. You must

remember that the Vedas had never been published in India, though for more than three thousand years they had held there the same place which the Bible holds with us. They existed in oral tradition, as they still exist, and in manuscripts, more or less perfect, more or less correct. These manuscripts therefore had to be copied, and then to be collated. This was comparatively an easy task. The real difficulty began with the commentary. First of all, that commentary was enormous, and filled about four volumes quarto of a thousand pages each. While the manuscripts of the text were generally correct, those of the commentary were mostly very carelessly written, full of omissions, and often perfectly unintelligible. But the greatest difficulty of all was that Sayana, the compiler of the great commentary, who lived in the fourteenth century, quoted largely from a literature which was at that time entirely unknown to us, which existed in manuscripts only, and often not even in manuscripts accessible in Europe. My idea was to give extracts only from this commentary, but on this point Burnouf resisted with all his might. We must have the whole or nothing, he used to say, and often, when I despaired of my task, he encouraged me and helped me with his advice.

Before I could begin the first volume of my edition of Sayana's commentary I had to read, to copy, and to index the principal works which were constantly referred to by Sayana—a little library by itself. However in 1849 the first volume appeared, and twenty-five years later, in 1875, the whole work was finished.

THE ETHICAL IMPORT OF DARWINISM.

BY L. J. VANCE.

[CONCLUDED.]

Now, what are natural morals? By natural ethics we mean those morals which are deducible from the uniform course of Nature and of consciousness in our fellow-men. Natural morals are so called because they are in sharp contrast to supernatural morals. The evolutionist would strip from the moral sentiments that artificial glamour by which they have been surrounded by generations of "trained experts," and theologians. They would show that in place of being a simple social instinct, the moral sense is the most complex; that, instead of being put into man's heart in some supernatural way, it has come as a normal and natural product of human development. Moreover, how would Prof. Schurman prove that the "deliverances" of conscience, developed from the social instincts of apes, were not as strict and stringent as any developed from the feelings and passions of fallen angels? In any event the present deliverances of conscience would remain sacred and inviolate. The Darwinist admits that often conscience moves in a mys-

terious way its wonders to perform, but that way must be the natural way. The moral sense is natural when it follows natural laws; and because we do not know what those laws fully are—that is no valid reason for making a supernatural system of ethics. If the analogies of natural law can be carried into the moral world, then that domain at once comes under the reign of law. In truth, moral laws are not merely analogous to natural laws, but they are the same laws. It thus becomes not a question of analogy, but of identity.

I am aware that this view of natural morals raises the metaphysical bugbear of free-will. This, however, does not bother the evolutionist, who looks the metaphysical monster fairly in the face. And we are pleased to note that so able, and fair-minded an evolutionist as Prof. E. D. Cope has stated both sides of the free-will controversy in a singularly lucid manner. "It has been said that the operation ordinarily called choosing, in which the will is popularly supposed to be free, consists merely of a sum in addition and subtraction, where various inducements are balanced, the resultant preponderance being expressed in the act. It will be easily seen that while this statement is true in regard to cases where the elements of the calculation are known, it is not true where any or all of them are unknown. . . . "It is evident that occasions must arise in human experience where a decision between two alternatives is dependent on choice alone. That these occasions have arisen, and the choice been made is shown by the existence of the altruistic class of actions," (p. 451-53).

Here, however, is the frequent conclusion. "Each man," says Prof. Cope, "must learn the merits of different courses of action in regard to morals for himself; his intelligence places before him the facts, and shows him how to execute his wishes, but the state of his affections determines the direction of his acts. Intelligence is the condition of the perception of moral truth; in other words, intelligence as applied to moral questions, is the conscience. Consequences of acts are understood, and their relations to pleasures and pains of men are weighed. . . . That it has improved in the practice of right has not been due to the inheritance of respect for law, but to the self-destructive nature of wrong. That continued wrong sooner or later ends in destruction of the wrong-doer, either from within or without, must be generally admitted. Thus is the truth of the doctrine of the Survival of the Fittest vindicated in moral as in natural law."*

This view of the ethical import of Darwinism has been entirely overlooked by Professor Schurman. In his eagerness to make a point against Mr. Darwin and "his school," I do not find that anywhere he has met the "gratuitous" assumption, namely—that the first principles of morality were hardily won in the struggle

for existence. From the Darwinist's point of view there can be no morality apart from society. As soon as men began to learn the difficult art of living together; as soon as they understood the prime necessity of organizing and combining for mutual preservation and protection; as soon as the feeling and habit of comradeship were developed,—so soon would the idea of *meum* and *tuum* arise,—so soon would the sense of right and wrong be acquired. And this is morality, *pure et simple*. Thus the moral instincts grew up naturally out of the common interests and feelings of human beings living together in society. Now, observe: the moral instincts could never have been the exclusive possession of one man, but they are the embodiment of the memories and experiences of thousands and thousands of men. Thus it is that in the matter of moral feelings we are 'the heirs of the ages,' and 'foremost in the files of time.' Or, as Maudsley well puts it, if the moral sense were not more or less innate in the well-born individual of this age, if he were obliged to go, as the generations of his forefathers have gone, through the elementary process of acquiring it, he would be very much in the position of a person, who, on each occasion of writing his name, had to go through the elementary steps of learning to do so.

Prof. Schurman is no more successful in his attempt to refute Darwin's argument that the social instincts are more present and enduring than the selfish instincts. He simply tries to break its force by saying that "our hypothetical ancestor" must have perceived the social instincts as higher than the selfish instincts (p. 200). Yet that does not explain, says he, "why I feel remorse over acts of vengeance or robbery." Prof. Schurman should read Browning. In *Christmas Eve* he will read:

"Whom do you count the worst man upon earth?
Be sure, he knows in his conscience, more
Of what Right is, than arrives at birth
In the best man's acts that we bow before."

Note quæcunque extra. Now, Prof. Schurman would have us believe that the Darwinist is here speaking dire treason against the "undeniable deliverances" of conscience. Not so; on the contrary Darwinism invests the moral sense with a higher and greater dignity than before.

Consequently we may rightly inquire, What possible difference can it make to us whether conscience is derivative, or whether it is intuitive? The great fact stands out that conscience is what it is. The moral sense of mankind remains the same on any theory. Its "deliverances," when born of earth, are just as binding as if they came from some celestial source. *In foro conscientie* every man is bid to

"Follow right
Mere wisdom in the scorn of consequence."

In the presence of a Power, not ourselves, which

* "Origin of the Fittest," p. 455.

makes for righteousness, each one of us hears the still, small voice of Man, commanding us to work for Man.

Thus, it is one of the many great services rendered by Mr. Darwin to the study of ethics that he has taught the indissoluble dependence of man upon man as a scientific verity. The social relation is as constant as that of oxygen and hydrogen. Men can only thrive through universal good-will; they deteriorate through ill-will. Thus, the Darwinist would throw the whole burden of human redemption upon man, and upon man alone. He would take for granted that in the struggle for existence men will find out that the social instincts are superior to selfish instincts. Finally, he would hold that man, like Faust, "Through obscure aspiration has still an instinct of the one right way."

But above all, the great import of Darwinism is its moral optimism. I am aware that this view of the evolution of morality has been vigorously combatted by the anonymous author of "Conflict in Nature and Life." From his point of view, morality is 'taking such direction as meets with the fewest damaging blows.' It is 'the aggregate result of utilitarian adjustment in the midst of complicated conflict'; and that is the reason why altruism is superior to hedonism (p. 160). Thus we learn that the true philosophy of ethics is neither optimism nor pessimism, but what the ingenious author calls 'the Middle Way' (p. 485). Whether we call this view of life the Middle Way, or the Mean, or Meliorism, the author frankly confesses that his philosophy is simply 'a return, with some improvement, to the good old doctrine of the Stoics.'

But, for the thorough-going Darwinist there is—there can be—no Middle Way in morals. He sees that, even if the doctrine of Conflict be true, pleasure and happiness do not come by any middle way. Granting, that "happiness and pleasure can only be had by paying their price," he is loath to believe that the price consists in 'taking such direction as meets with the fewest damaging blows.' Happily, there is a law of our nature by which we follow right "mere wisdom in the scorn of consequence." Thus it is that general happiness is to be achieved by the price paid by individual right doing, while the happiness of individuals will be achieved in part by the pursuit of the general happiness. According to Spinoza, "Nothing is more useful to Man than Man; men can desire nothing more excellent for their welfare than that all should so agree in all things that the minds and bodies of all should make up, as it were, one mind and one body, and all together strive to maintain their welfare to the best of their power, and all together seek the common good of all. Therefore, reasonable men desire no good for themselves which they do not also desire for other men."^{*}

* Ethics IV, Schol. 18.

Here our criticism of Prof. Schurman's contribution to the ethical import of Darwinism comes to an end. We have not hesitated to show that, where he has not been unfair to Mr. Darwin's theory of ethics, he has either overlooked or mistaken its import. We do not take up the cudgels in behalf of a "school" of morals; that is another question. We do not know the "school" of ethics to which Prof. Schurman claims to belong. He has, very rightly, divided ethical students into two classes—the dogmatists of the schools, and the open-minded, fact-revering inquirers. The latter he calls 'the true heirs of Darwin,' (p. 38). We leave it with his readers to decide as to which of the two categories Prof. Schurman would most properly be classed.

THE SCIENCE OF ETHNOLOGY.*

ITS HISTORY, DEVELOPMENT, AND METHOD.

BY DR. TH. ACHELIS.

Apart from the Aristotelian statement of the problem in the well-known phrase "ἄνθρωπος φύσει βίων πολιτικόν" substantially correct, although from the nature of the case not further practically elaborated—we do not meet with the idea of a science of mankind that ventures beyond the conventional ground of so-called Universal History until the Eighteenth Century, in that philosophy of enlightenment which despite its narrowness was so productive of germinal principles.

Herder, particularly, pointed out the importance of the question—an ideal for his time, and apparently realizable only in the transports of enthusiasm. In the preface to his work *Ideas for a History of Mankind*, he says: "In my earlier years, when the meadow-lands of science lay before me in all the resplendence of early morn from which the noon-day sun of life withdraws so much, the thought often occurred to me, since everything on earth has its science and philosophy, should not that too have a science and philosophy which touches us most nearly—the history of mankind in its unity and totality?"

"Just one hundred years have passed away in the stream of time," says Bastian in a little brochure, *A Centenary*, "since one of Germany's most gifted sons spoke those prophetic words, idealistically conceived at the time, yet now about to be realized. In his *Ideas for the Philosophy of a History of Mankind*, Herder has given expression to a thought which is now, a century later, to receive its inductive fulfillment through Ethnology as the science of man. The God in history that was sought, will be found in Man in History."

The penetrating mind of Schiller also marked out with equal precision the exalted mission of a comprehensive philosophy of history. In his well-known

*Translated from the *Deutsche Rundschau* by μπερ.

Academical Inaugural Address at Jena, *What is, and Why do we Study Universal History*, he deprecates the manifold gaps in the continuity of human knowledge, and after asserting that the *disiecta membra* of universal history would never merit the exalted title of a science, he says: "Philosophy now comes to its assistance, links together these fragments by artificial bonds, and raises the aggregate to a system, to a rational and connected whole. Philosophy's authority for this lies in the uniformity and immutable unity of nature's laws and human character. This unity is the reason that the occurrences of remotest antiquity repeat themselves under similar external conditions in most recent times; it is this that sanctions the inferences drawn from the observable conditions of modern times to those which lose themselves in the past, and it is this that enables us to shed some light upon the prehistoric epochs of antiquity. The method of inference from analogy is in history as everywhere a powerful auxiliary." The most essential means of proof, as later developed in the exact method, are here discerned *a priori* and with striking precision. This is particularly true of the inferential method as developed by Tylor in his theory of "survivals."

Finally, towards the end of the last century, Meiners, in his "Encyclopedia of the Sciences," laid particular stress upon this universal phase of a history of the human race. "All other departments of history, as the history of arts, sciences, and great inventions, exhibit only certain phases of humanity, or portray only individual aspects and separate epochs; the history of mankind alone comprehends all of man, as constituted at all times and in all parts of the earth."

Yet howsoever pointedly and frequently the fundamental and essential ideas of this future science had been formulated, the efforts at practical realization nevertheless fell short of the ideal conceived. For not only did such disturbing factors as the tendencies of æstheticism and of the history of civilization (particularly the morbid and sentimental craze for peoples in a state of nature) interfere with the objective treatment of the subject, but there was also a great dearth of necessary material. The difficulty could not be remedied until discoveries were made that led to a systematic classification of data; a work accomplished in the different museums of France, England, and America, towards the middle of the present century. In Germany political dismemberment left all to the enterprise of individual effort; in 1861 in Göttingen the Congress of Anthropologists was convened at the call of the celebrated naturalist, K. C. Von Baer; in 1859 was published the remarkable epoch-making work of Th. Waitz, entitled *Naturvölker*; and finally appeared the first effort of Bastian, *Man in History*,

with the insignificant addition *A Contribution to the Establishment of a Psychological View of the World*, published after the author's return to Europe from his first journey abroad, of seven years duration.

The movement had now been started. The term Anthropology, which formerly had sounded so strange, and had been chiefly employed to designate an indiscriminate collection of interesting curiosities, rapidly began to gain the rights of citizenship, and after Bastian, in 1868, had assumed the control of the ethnological department of the royal museums at Berlin, the *Zeitschrift für Anthropologie, Ethnologie, und Urgeschichte* (Review of Anthropology, Ethnology, and Primeval History), was started in 1869, under the editorial management of Hartmann, Virchow, and Bastian, and in 1870 the society of the same name was organized at Berlin. By the side of the latter stands the German Anthropological Society of Mainz, whose productions are published under the editorial direction of Prof. Joh. Ranke, in the *Archiv für Anthropologie*.

Of the many different sources and causes of this great movement, Bastian makes especial mention of the following: "The first coöperation came after the founding of the African Society, in the shape of instructions given to its travellers, as well as in the similar practice of the Humboldt and Ritter foundations; then—an inexhaustible source—from the activity of the German navy, the contributions of which (especially those from the tropical seas now in the National Museum), are of extraordinary value; further by means of circulars to consulates, through contributions from missionary posts and from countrymen engaged in commerce and other occupations with the outside world. So that, after the completion of the new Museum, when these embodiments of the spirit of the nations will have been disclosed in systematically arranged collections, deep vistas into new worlds of intellectual life will open on every side to those who pass among them. The sudden change that has been inaugurated in favor of Anthropology and Ethnology is most profoundly felt by those who have lived through it. But a short time ago it was scarcely known, seldom mentioned, and if so, not understood. Its name is now on everybody's tongue, and Anthropology, especially, boasts of the favor of high patronage; for our science must in great part attribute the successes we have noted, to the support of the Imperial Admiralty and the countenance of the Foreign Office whose powerful influence has aided it in many ways."*

As a final illustration of the comparatively rapid change of public interest with regard to the great problems of Ethnology, we may mention that in 1870

**Vorgeschichte der Ethnologie*, p. 51.

the Berlin society alone existed in Germany, and that its only rivals in Europe were to be found in Paris and London, whereas now besides the Berlin society and those afterwards founded (in Munich, Kiel, and Göttingen) there are some five and twenty branches in different parts of the empire.

Having thus given a sketch of the external development of our science, we come now to an exposition of the method that Ethnology follows. A preliminary remark, however, will first be necessary in order to answer objections which have been raised from an historical point of view. History usually presupposes civilization; our science, on the contrary, aims to exhibit the gradual evolution of civilization from the scantiest and simplest germs, and thus to draw in these forms of social organization a comprehensive picture of the human mind in its most multiform processes of development. Accordingly, those very tribes that from a strict historical point of view have *no* history, or at least no literary history, constitute the subjects of ethnological investigation. And Ethnology therefore does not dispute the glory of her elder, and in many ways maturer, sister. With all becoming modesty Ethnology merely asks for indulgent toleration. Geographically, the earth would be thus divided between the two rival sciences. All of Oceanica would fall to Ethnology; also America before its contact with European civilization, and the greater part of Africa; isolated portions of Asia; and Europe in the prehistoric period. All the rest belongs to history.

Although from an unprejudiced stand-point no lasting conflict can occur between the two departments of investigations, this difference in method will necessarily assert itself, and indeed this is so much the case that historians for this very reason frequently hesitate to admit Ethnology into the rank of the other sciences. Let us turn to Bastian again. "The Mission of Ethnology," he says, "will be to corroborate in the field of investigation assigned to it, the inductive process of historical research (in the broadest conception of a history of mankind), and to facilitate the opening of the roads which are necessary to its pursuit. For, though the study of comparative psychology begins with the lowest and simplest forms of ethnic ideas in order to determine in the more transparent simplicity of these facts the elements that go to make up the fundamental laws, a thread of guidance is thereby furnished which, even amid the labyrinthine mazes of the complicated creations of civilization, promises to bring about a gradual elucidation."*

Psychology, therefore, the creator of our modern conception of the world, forms, at the same time, the basis of Ethnology; and the latter thus acquires the distinctive character of a connective link between the

philosophical and the natural sciences. Yet there is one thing which must not be forgotten. While up to our day the study of psychology has been chiefly pursued upon a purely speculative, or at least individual, basis, there is now pouring in through the intimated prospect of a universal comprehension of the human race in its psychical organization, an infinite amount of material for investigation. "Psychology," thus Bastian begins his first treatise, "must not remain that narrow branch of science which, with the addition of pathological phenomena, the data of insane asylums, and general educational facts, is limited to individual self-observation. Man, as a political animal, finds his consummation in society alone. Mankind, a concept which knows none higher than itself, is to be taken as the starting-point, the unified whole, within which the single individual figures only as an integrant fraction. . . . The eye of man glancing back into primitive times followed the thread of tradition, so long as tradition marked an open path, on to the period of literature and the origin of writing when tradition could first be permanently preserved; and overlooking the long succession of primitive stages, which the human mind must have traversed before attaining to the elevation it then occupied, and dazzled by its resplendence, people concluded that the human race originally existed in a state of primitive wisdom from which degeneration alone was possible. Thus did history hitherto exhibit only the course of development of separate castes instead of the course of development of mankind. The dazzling light that poured from the apex of society eclipsed the broad foundations that lay below it, and yet it is only in the masses beneath that the productive forces germinate—only in them that the sap of life circulates. . . . The philosophy of the inner organic process of growth can be found only in psychology—and in that psychology which studies not only the evolution of the individual but also the evolution of mankind."*

In this conception, accordingly, there is no such a thing as the single isolated existence of human beings, such as lurks in our popular treatises in the shape of the primitive man, with the additional poetic fictions of a period when there existed neither speech nor reason. As far as experience reaches, man appears everywhere as a social animal, forced into this natural and unavoidable relation, to which through individual reproduction he first owes his psychic individuality. An atomism of society, such as is again discernible in English utilitarianism, has no existence in fact, either morally or mentally. This is especially true of those prehistoric times of germinating civilization which do not know of personalities equipped with definite moral rights and obligations in our sense, and

* *Vorgeschichte*, p. 60.

* *Man in History*, Preface, p. 11.

where strikingly communistic features are rather apparent.

To this idea of a comparative, or as the current technical expression has it, sociological psychology, Bastian has devoted a separate treatise, *Zur Naturwissenschaftlichen Behandlungsweise der Psychologie durch und für die Völkerkunde*, from which we wish to quote a passage or two that especially relate to our discussion. "In Ethnology," says our author, "the different conceptions of the world entertained by the various nations are to be regarded as psychical organisms, as original creations of the soul of ethnic life. Historical development can here be taken as a factor only when data in visible succession are at hand; while particularly all forms of variation are to be examined, with reference to their causes as affected by alterations of environment" (preface p. 15). And again, "The organism is contained in the germ. And so in the primitive and germinal elements of the ethnic idea are contained the various forms of its distribution amid every sphere of human civilization, in the phenomenology of the mind throughout the world."

As was discovered by comparative philology first in the limited domain of the Aryan peoples, the beginnings of civilization even among nations that differ fundamentally in character, geographical location, and historical development, bear the most striking resemblances to one another; and we accordingly cannot reject the inference that the human race, despite all later differentiation, represents a psychical unity which finds organic expression in the multifarious forms of religion, custom, law, art, and like manifestations of social activity.

In opposition to this aspect of psychical homogeneity stands now a greater and now a lesser deviation from the original type. These deviations may be arranged within accurately determined topographical frames, and by thus keeping in view all our available material we may establish a statistics of the psychological growth of all peoples of the earth, even to the most trifling differentiations. The critical method by analogy and inference, early mentioned by Schiller, plays a particularly weighty part in this genetic construction of a comparative psychology, and the noted English investigator, C. Tylor, has turned this to special account in his "Primitive Culture." After illustrating the cogent power of facts by citing various instances, and demonstrating the consequent impossibility of a merely subjective and arbitrary explication, he proceeds to the explanation of 'survivals' in the following manner. "These are processes, customs, opinions, and so forth," he says, "which have been carried on by force of habit into a new state of society different from that in which they had their original home, and they thus remain as proofs and examples

of an older condition of culture out of which a newer has been evolved. . . . Such examples often lead us back to the habits of hundreds and even thousands of years ago. The ordeal of the Key and Bible still in use is a survival; the midsummer bonfire is a survival; the Breton peasants' All Souls' Supper for the Spirits of the dead, is a survival. . . . The serious business of ancient society may be seen to sink into the sport of later generations and its serious belief to linger on in nursery folk-lore, while superseded habits of old world life may be modified into new world forms still powerful for good and evil. Sometimes old thoughts and practices will burst out afresh, to the amazement of a world that thought them so long since dead or dying; here survival passes into revival, as has lately happened in so remarkable a way in the history of modern spiritualism, a subject full of instruction from the ethnographer's point of view."

This reconstruction of original causes from forms of arrested development still preserved, is after all no specific prerogative of Ethnology. Although only possible upon the broad basis of modern inquiry, and although even here to be used with greatest prudence, it still rests upon the application of a fundamental law which has received unqualified recognition in biological investigations and acquired universal validity for all scientific research.

An active laborer in the field of Ethnology, H. Post, whom we shall meet later in speaking of the development of law, has discussed this fruitful method with great clearness: "The evolutionary origin of the starry heavens may be determined from their present structure; the strata of the crust of the earth disclose to us the history of our planet; morphology has taught us to trace in the organic structure of a plant or an animal the stages it has passed through before it reached its present point of development; in the successive phases of fetal life we find repeated the main features of the life of the race; the story of cerebral development may, by those who understand those Runic signs, be interpreted from the structure of the brain; the philologist can elicit from human speech the history of human reason:—and so does the collective status of the human race and the condition of every single organism encountered in the life of species, afford definite and accurate material for inferences as to the story of the human race and to the history of that single organism."*

It is not the purpose of this essay to confirm this biogenetic law of all organic phenomena by further verification. We shall accept it, and we may with all justice emphasize its validity as bearing upon the complicated processes of the life of nations. The main factor is, and remains, a collection of materials which

* *Ursprung des Rechts*, p. 8.

shall unite comprehensiveness and compass in the greatest possible degree; and we thus understand why Bastian, who was himself obliged to witness the extinction of so many aboriginal tribes, is indefatigable in impressing this as a first and holy duty upon persons engaged in these researches.

(TO BE CONTINUED.)

CORRESPONDENCE.

NEW WINE IN OLD BOTTLES.

A LETTER FROM ENGLAND.

To the Editor of *The Open Court* :—

I read with interest the article "New Wine in Old Bottles." The usual way of treating this proverb has always seemed to me most unsatisfactory. It can only apply in the case of two things belonging to two 'orders.' *The wine belongs to the vegetable and the wine-skin to the animal kingdom*, or, as glass, to the mineral.

There must be a contrast answering to this, to make the proverb apply. But it is constantly applied to things really like a grape and its skin, a drop of water and its skin, or at least like an insect or snake and its 'sloughed' skin. If the wine-skin were analogous to the grape-skin, it would expand when needful, as with the expanding growth of the pulp within. Now language and gesture, symbol, observance, rite, formula, belong to the same order as the impulses and emotions, thoughts and ideas, beliefs, convictions, and conclusions which evoke them and find expression in them, are embodied in them,—in short, evolve them as formative and protective. And that 'skin,' growing with the growth—often imperceptible to the continuous observer, except by an effort of memory and comparison,—of acorn-heart to oak, or embryo to adult vertebrate, undergoes modification to such an extent that no doubt its own 'mother,' the organic 'vital' force of the primitive cell, would not know it.

One likes to think of this when one notes the marvellous inconsistency of some of us, who disloyally resist the action of this vital law, and on the one side insist on retaining both the old skin-word or skin-act of a given stage and its corresponding superficial, or skin, meaning, neither of which can be stretched to fit its swelling vigor of inward life and energy; and on the other, would have us *invent* a brand-new skin like a glove or a boot, and rebuke us sternly for believing that when you come to outline or skin, to the principle of expression in word, or act, or form, nature's plan of gradually modifying it with its contents and their functions and relations, is best.

I own to loving the thought that we carry on all creation, inorganic or organic, within us. Our brand-new idea or symbol is mostly an unusually ancient one, with a flood of acquired experience poured in upon it.

Y. W.

REAL AND REALITY.*

Freethought published in No. 15 a criticism of an article of mine by "Agnostic," which I should entirely ignore for its obvious and unjust misrepresentations. Yet considering the fact that it calls attention to some passages which, although correct, might easily be misunderstood, I send you a few words in reply. My anonymous critic possesses my sincere commiseration not only for his ignorance of the elements of logic, but also for the rudeness with which he presents his case. I need not here repeat the words with which he has—but not, I suppose, with editorial approbation—disgraced the columns of your journal.

My anonymous critic quotes the following sentence: "Mater-

* Reprinted from *Freethought*.

ialism went too far when it tried to explain everything from matter, when it identified *matter* with reality. Yet it stands on solid ground when it maintains that *every reality is material*."

Parenthetically it may be remarked that "Agnostic" quotes the italicized words wrongly. Instead of *matter* he says "itself," and instead of *every reality is material* he writes, "*every reality is matter*." Such gross misquotations must, of course, make the most lucid explanations unintelligible.

"Agnostic" declares that the sentence quoted is a contradiction. The sentence does not contain a contradiction, as will be learned from the following consideration:

Every reality has three elements. First, it consists of matter; secondly, its material particles have a special form; and thirdly, they are endowed with a certain motion. Matter, form, and motion are abstracts representing certain qualities that are real; we call them "real" because they are qualities of reality. Matter is real, form is real, motion is real. Yet matter is not all of reality, nor is form, nor is motion; for every reality, besides being material, possesses at the same time a special form, and is also endowed with some kind of motion.

It is apparent that adjectives have often a wider application than their nouns. The adjective "real" covers a larger field than the noun "reality." Thus every fool is foolish, but every thing that is foolish need not exactly be a fool. I may say, without falling into a contradiction, this: Space is real; yet space is not a reality. This, in other words, means: Space is a certain quality of reality; the relations among things, the qualities of things, are objective properties and not mere subjective illusions; yet is space no thingish entity, no tangible object, as concrete bodies are, e. g., stones, plants, and animals. Space is non-material, and yet space is real. If I have the following two premises:

Every reality is material.

Space is real.

I cannot conclude the syllogism with the statement:

Therefore space is material.

And there is no contradiction involved if I add the sentence:

And yet space is non-material.

My critic would perhaps find no fault with a logician who concludes from the premises:

All geese are two-legged.

Man is two-legged.

Therefore man is a goose.

I confine myself to this logical exposition without entering on the discussion as to how far materialism is correct, and how far, as a philosophy, it is insufficient.

P. CARUS.

CHICAGO, April 28, 1890.

NOTES.

BY GENERAL M. M. TRUMBULL.

Some sarcastic fun is occasionally thrown by thoughtless wits at those veteran soldiers who get pensions for "mental agony" suffered in the war. Is the sarcasm just? Shall physical suffering win a pension, while mental torture goes unrecognized? Take this for illustration. We had a handsome captain in our regiment, and when he first appeared in his new uniform he was much admired. In the early summer of '61, we came very close to a fight near Kirkville, Mo., so close indeed, that for several hours we stood in line of battle watching the enemy meandering and maneuvering to draw us from our favorable position. Failing to do it, he decided to leave without making any disturbance in the neighborhood. This was our first meeting with the "boys in gray." Next day, the handsome captain came to me and said, "I want to get out of the army"; I asked him why; "Because I'm a coward," he answered, "I found that out yesterday." I told him that if he had fairly convicted himself of cowardice, perhaps he ought to leave. So he sent in his resignation, and we lost him. But he

was prompt and early on the pension roll, and when his pension excites criticism as it sometimes does, he justifies it by saying, "Anybody who knows how scared I was at Kirkville, will never begrudge me a pension." This reasoning appears to be sound according to the ethics of the pension office; and many thousands have the benefit of it; as indeed, why not?

Is Nature, in the process of evolution, lengthening the period of human life? If so, are all nations getting the benefit of the increase? If some are favored and others not, what are the reasons for the partiality? Are they purely physiological, or are they due to a strengthening of the spirit through a larger mental education? Is it within the power of physics, or of metaphysics, or of both together, to make a law declaring that from the dawn of the twentieth century, the period of old age shall begin five years later than it began during the nineteenth century? And having made the law, will they be able to enforce it? I ask these questions because I notice that some nations, for instance, Germany and England, have already attempted to extend the time at which old age may legally begin; while in the United States, the tendency appears to be the other way. I have a friend who served with me in the army, a man who was formerly governor of my State. Last year he was candidate for commissioner of something or other at Washington; and indeed he was down on the "slate" for the place, but gradually his chances grew smaller and smaller, and at last they vanished altogether under the excuse that "the old man was too old." He had reached the patriarchal age of sixty-two. This appears to me to shrivel up the time of American manhood, especially when I behold Bismarck fretting with impatience because he has been taken out of the harness at the vigorous prime—for him—of seventy-five, while Moltke, an older man by a dozen years, is yet in public life, making great speeches in the Reichstag. Gladstone at eighty-one is the active and ambitious leader of a great party in the House of Commons; but that is not very wonderful for England, because there are several members of the House of Commons who are much older than Mr. Gladstone. They perform all their parliamentary duties like the other members, and plead not the privileges of old age. What is the secret of strength preservation for eighty, ninety or a hundred years? "Tell me Samson wherein thy great strength lieth." Perhaps the answer will be this:

"Though I am old, yet am I strong and lusty,
For in my youth I never did apply
Hot and rebellious liquors to my blood."

How much of the solution of this problem lies in the hot and rebellious liquor question?

This is Decoration day, and the veterans of the great war seem rather proud than otherwise to accept the immunities of old age, while the younger generation looks upon us as the venerable relics of the antediluvian time. We humor ourselves to this kind flattery, and thereby shorten the period of lusty manhood by a dozen years or more. I find myself yielding to the temptation, and labor along with the help of a cane when I am able to march eight or ten miles elastic and light as I ever did. "Venerable men," said Daniel Webster, addressing the soldiers of the revolution assembled at the dedication of the Bunker Hill monument, "Venerable men." This was appropriate, for the war then was fifty years past. It will be time enough to call us "Venerable men" when we can say of the fall of Sumter, "Tis fifty years since." A few days ago I got a late number of the *Illustrated London News*, and there I found a portrait of Admiral Wallis, a stout old sailor now serving in the British navy. Since looking at that picture I feel ashamed to call myself a veteran; it looks like presumption to do so. Admiral Wallis was an officer in the navy and actually fought in the action between the Shannon and the Chesapeake in 1813. Although a hundred years of age he is still

on the "active list" of the British navy. He may properly be called a veteran.

What does a baby think, is a question that no doubt has puzzled most of us when gazing into the inquiring eyes of a philosopher six months old. Poets have speculated on the puzzle in delightful metre but they have not solved it. An equal puzzle is the question, What does an old man think? I don't mean an impostor of sixty-five, or seventy, but a genuine old man, a man of one hundred years. Does he think that a hundred years of human life is worth living, and would he live it over again? Does he envy the luck of his schoolfellows who died forty or fifty years ago, or does he think himself luckier than they? Has the world grown in his good opinion through long acquaintance with it, or otherwise? Does he look with contempt upon the millions who started with him and could not stay the distance, or does he give them credit for having done the best they could? I never knew but one man who was over a hundred years old. One day, when he was a hundred and two, I happened to meet him at the village market where he had gone to buy something for his dinner; a friendly policeman came along and saluted him; "Good morning, Mr. Stiles," he said, "How does a man feel after he has entered his second century?" "That all depends, my son," said the old man, "that all depends upon how he spent the first one." And I have no doubt that this subjective application of the lesson of his life largely determines what an old man thinks.

Can we lengthen our own lives? The supreme test of modern science will be its answer to that question. Can we lengthen the period of strong manhood and strong womanhood? At present a man is liable to military service up to the age of forty-five. Can we increase his average vitality so as to raise the limit and make it fifty years? An officer of the army is retired for "old age" at sixty-four. Can we not postpone old age till seventy, eighty, ninety, or even a hundred years? If one man can live to be a hundred years old, why cannot another? During the war I became acquainted with a negro patriarch who was a constant visitor at our camps where he was much patronized by the soldiers because of his extreme age, ninety-two years. One day he came to my tent in great alarm, and wanted to know if there were any new orders out about "de draft." I told him that I had not heard of any. "Bekase," he said, "De boys jist been a tellin me dat Marse Lincum done made an order dat eberybody under a hundred years old is to be drafted into de army." I told him that no such order had been issued, and that he need not be afraid. But, may not that be the order some time in the coming centuries, when the laws of health and life shall be better understood than they are now? I don't mean literally, of course, because as ethics grows with knowledge, when men have learned enough to live healthy lives for a hundred years, there will not be any drafting into the army, for wars will be no more.

NOTES.

The *Century* contains in its June number an article by Mr. Albert Shaw on the London Polytechnics and People's Palaces. The Polytechnic is in Regent street, where it flourishes under its founder, Mr. Quintin Hogg, who is one of the great merchants of London. There is not the faintest suspicion of the typical philanthropist about him, and perhaps that is one reason why his philanthropic work has been so singularly successful. He began with the 'ragged-school' line of philanthropy. Mr. Hogg appreciated the lack of opportunities for games and recreations among the working lads of the metropolis. As a practical man of affairs, also, he perceived the necessity for systematic instruction to supplement, though not to supersede, the education of the shop. Thus Mr. Hogg's ragged schools in the Drury Lane neighborhood developed into a home for boys in which regard was had to every side of the juvenile nature.

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ST. ANTHONY'S DAY.

FROM MY ROMAN JOURNAL.

BY MONCURE D. CONWAY.

III.

ON St. Anthony's Day (Jan. 17) the animals were blest. The ceremony occurs at the vestibule of the church of St. Anastasia. This church is near the splendid ruins of the Forum, and the arch of Janus; it is near fifteen centuries old, but the ever-restoring hand has kept this homely church new, in appearance, while the Palace of the Cæsars, whose cellar adjoins its crypt, and the exquisitely carved monuments of another faith, have crumbled around it. So little does any superstition care to preserve any beauty that cannot be turned into a buttress for itself. Inside the church is a marble figure of the fair martyr Anastasia, reclining on a fagot; before her altar St. Jerome once celebrated mass. I was more interested in a life-sized bust of St. Anthony, (the "Abbot") with a lamp burning before it—the little flame hardly visible in the bright daylight. This bust, apparently of tinted porcelain, gives the Saint long dark hair, dark eyes, and a benevolent face. The golden complexion of the Saint bore to my eye—possibly to my fancy—a suggestive resemblance to the Buddhas in Ceylon. Buddha and St. Anthony have the honor of being the only prophets known to religious history as having shown any consideration for animals. Save for the prudential maxim about not muzzling the ox that treads out the grain, there is nothing in the Bible that can be construed into a tenderness for animals; what Christ said of a "providence in the fall of a sparrow," being by no means promising for the sparrow's life. According to the Buddhists, their Lord believed the animals to contain human spirits on their way to human forms. So I cannot help suspecting that this little lamp before the golden-hued Anthony was lit at the shrine of golden-hued Buddha. But its paleness in to-day's sunshine has also a suggestiveness. Europe utterly lost the oriental faith of relationship between man and the animals, until it was restored by Darwin. It may even be that Buddha was a forerunner of Darwin, and that it was a theory of evolution which Buddhist theologians turned into a theory of transmigration. However that may be, Darwin is the real founder of every

existing society for the prevention of cruelty to animals. I cannot learn, after some inquiry, that a single society of that kind existed either in Europe or America before the publication of Darwin's "Origin of Species." I imagine that the Pope recognized Darwinism in this movement when some ladies in Rome—chiefly English—asked him to become the chief patron of such a society. He promptly declined, and I have heard that he added, "Man owes no duty to the animals, and it is a heresy to suppose that he does." I cannot vouch for this, nor that it was the present pope who refused,—for he looks like a kindly old man. However, the society has never had any sympathy from the vatican. It has gained a success in doing away with the barbed races at Carnival. I have seen those horses dashing with agonized fury under the barbs—their only riders—which pierced their backs at every leap. The scene now belongs to the gladiatorial Past of Rome.

During the long pre-Darwinite ages of Europe this one little light burning before the Saint who preached to the birds and fishes—the only congregation near his hermitage—was the only witness to any survival in the West, of the sympathy which led the Buddhist emperor Asoka to build hospitals for animals,—centuries before the Christian era. It is said of the fishes who listened to St. Anthony,

"Much delighted were they
But preferred the old way."

I fear it is much the same with those who take their animals to be blest on the Saint's day. Judging by the fate of some overloaded horses which I saw on my way to the church—one poor beast on his knees being lashed to his feet—I fear that "the old way" will continue for some time, or until Anthony surrenders to Darwin. For in the ceremonies and prayers at St. Anastasia, there was nothing to suggest that the welfare of the animals depended at all on kind treatment from their owners; it was all to be on the Saint's intercession. The sentiment was directed to Anthony, who, had he been present, would no doubt have said, "Why call me Saint! Saint! and do not the things that I said concerning my 'little brothers,' your domestic animals?" The behavior of some of the animals brought up for benediction—a frightened horse kicking, the dogs licking off their holy water—caused a Catholic

near me to say, "See! they are possessed; they need exorcism!" But instead of discerning the presence of inner demons hating holy-water, I saw in these nervous terrors a testimony of the dumb creatures to long experience of unfriendliness. They could not imagine that they were brought up with their noses in a church door, or that a brass aspersoir could be dashed towards them, except for some evil purpose on the part of man. The lap-dogs, used to petting, were serene enough under the process.

In the doorway of the church stood a small black-eyed priest, with sharp features, holding the brass aspersoir—a handle seven inches long with a perforated globe at top, about three inches diameter. At his side stood a large priest, with ample lace on his dress, whose good-natured face was somewhat like that of a dray-horse he was blessing when I arrived. He read from a card-board some prayers in Latin. The first, which I managed to translate exactly was as follows: "May these animals receive thy benediction, O Lord, and be saved in their flesh, and delivered from every evil, through the intercession of the Blessed Saint Anthony, through Christ our Lord, Amen." The next was very nearly this: "Omnipotent and eternal God, who didst cause the glorious Blessed Anthony, proved by various temptations among the tempters of this world, to depart unharmed, grant to thy servants that they may be enabled to follow his excellent example, through Christ our Lord, Amen." The third and last was a brief benediction on the animals, during and after which the smaller priest sprinkled the animals, which were all surprised, and some insulted. To each comer was given a small picture of the Saint in his rock-hermitage with rude crucifix, rosary, and book. No money was in any case accepted for the benediction; I saw repeated refusals of pay-

The priests stood at this work from 10 A. M. to 4 P. M., going through the prayers in a monotonous automatic way, neither of the holy men seeming to glance even at any animal brought before them,—though, as it occurs but once a year, one might expect them to take some interest in it. In front of the church a busy trade was carried on by boys and old women in holy and highly colored pictures, among which I found a rather interesting one. It represents St. Anthony in Friar's garb, with a rayed star near his cowl on which is written "Charitas." He is surrounded by medallions representing his miracles: a huge church bell, offered him in derision if he will carry it away, rises at his touch to follow him; he puts his hand in flame, without harm; he raises from death three children; he resuscitates a man frozen eleven days in the snow; with an herb he restores sight to a blind woman; he sails from Faro to Messina on his mantle with another friar; he rescues a lamb alive from

a burning lime kiln; he rebukes Ferdinand, king of Naples, for his misgovernment, making blood flow from some article, which seems to be the king's watch. Poor old Anthony little dreamed of the fairy-tales that would surround him in the far future!

All this took place near the Forum, where Cicero's voice was heard; on a street where Livy, and Tacitus, and Juvenal, and Horace, have many a time walked. Around are monuments of the civilization which high-born Anastasia renounced, at cost of palatial luxuries, parental love, finally her life, for the sake of her vision of the heavenly kingdom about to come on earth. The Rome she renounced was not quite civilized, indeed, but what would Anastasia say of her visionary Christian Rome, if she saw its fruits this day? It was a terrible instruction in the laws of human reversion,—or even atrophy,—to observe these people at the church-door, themselves stunted beside their finely-bred cattle and hunting-dogs. I am daily impressed by the miserable appearance of these Roman masses. Last week the great military funeral of the king's favorite general (Pasi) brought an immense crowd into the streets. I found myself jammed among hundreds of thousands. Unable to retreat I passed a half hour observing the crowd, and could not discover one comely female face among them. Their eyes were bleared, their features malformed, their complexions like tallow, their voices husky. In Italian homes I have seen several pretty domestics, and the "ladies" are as handsome as elsewhere; but among these toiling and moiling ones, ugliness is normal. The men are better-looking, but are undersized; even the soldiers, set to keep order in the vast crowd, were like boys; the throng broke through their cordon here and there, and then cracked jokes with them. The struggle for existence is too hard in Rome. And it is a sorry reflection that one could not break up these temples, nor disperse these superstitions, without destroying the subsistence of thousands. Superstitions now propagate themselves less by their religious value than by their economic necessity to these miserable masses.

After all, it is to be feared that whatever good Anthony may have done for animals, is more than undone by the evil his thorn-worship has done humanity. It is said that St. Benedict, at a later epoch, went on a pilgrimage to the thicket where St. Anthony rolled himself in thorns, and, clearing away the thorns, planted in their stead a garden of roses. But the roses were nurtured too late to ever bloom on Italian cheeks. Ages of Asceticism had eaten too far in the vital principle of this people. If there is anything rosy in their faces, it is more likely to be "St. Anthony's Fire,"—as we used to call erysipelas,—or other eruptions for which the Saint was once invoked,

I believe, as a master of fire and flame-like troubles.

However much the freethinking spirit protests, the humanitarian spirit in one cannot repress a compassionate satisfaction that the miserable so often dwell in a realm of pious Faerie; that each, in the proportion that he or she is mentally dwarfed, is certain of putting forth shining wings at last, and dwelling for ever in palaces but faintly fabled in these ancient splendors of Rome.

FIRE-WORSHIP AND MYTHOLOGY IN THEIR RELATION TO RELIGION.*

BY PROFESSOR F. MAX MÜLLER.

THE nearest relations of the ancient Aryas of India were no doubt the Aryas of Media and Persia, of whose religion we obtain some interesting though fragmentary information from the Zend-Avesta. The idea, once so prevalent, that their religion consisted entirely of Fire-Worship has long been surrendered by scholars, though it crops out again and again in popular writings. From the first acquaintance with the original texts of their sacred writings it became clear that fire occupied only a subordinate place in their religious system. If we call the religion of Zoroaster fire-worship, we must apply the same name to the religion of India, nay, even to the religion of the Jews. Almost every religion which recognizes burnt-offerings exhibits at the same time a more or less prominent reverence for the sacrificial fire itself, and to outsiders and casual observers in particular the fires burning on the altars of temples or on the hearth of every house seem to be the principal manifestation of religious worship and of religious faith. The real object of veneration with Zoroaster and his followers was Ahura-mazda, whom we call Ormuzd.

Ahura-mazda was a deity whose deepest roots we shall discover in the concepts of heaven, light, and wisdom. He was not Fire, though he is often represented as the father of Fire. This shows his close relationship with the Vedic Dyans, the sky, who was likewise conceived as the father of Agni. The name of fire in Zend, however, is not Agni, but *Atar*, a word which in Sanskrit exists only in the name *Athar-van*, one of the early sages who kept the fire. It is sometimes used also as a name of Agni himself. The word *atar* has no etymology, so far as we know, either in Sanskrit or Zend.

It is generally supposed that the religion of the Avesta differs from that of the Veda by being dualistic. In one sense this is perfectly true. The Zoroastrians recognize an evil spirit, Angra Mainyu, by the side of the good spirit, Ahura-mazda. In some respects these two spirits are equals. The good spirit did not create

the evil spirit, nor can he altogether prevent the mischief that is wrought by the evil spirit. The Zoroastrian religion, having a decidedly moral character, recognizes in this struggle between good and evil the eternal law of reward and punishment, good always begetting good, and evil evil. In the same manner the good spirit opposes the evil spirit, and every man is expected to fight against evil in every shape.

Zoroaster himself was supposed to have been appointed by Ahura-mazda to defend the good people, it may be the agricultural population, against the attacks of their enemies, the worshippers of the Devas. The oldest prayers in the Avesta are supposed to have been addressed by Zoroaster to Ahura-mazda, imploring his help, and mourning over the suffering of his people.

All this is perfectly true; but if we once know from the Veda what the fight between good and evil, between light and darkness, meant in the beginning, we shall understand that, after all, in the Dualism of the Avesta, the good spirit is always supreme, as Indra is supreme over Vritra, Agni over Ahi, Atar over Azi Dahaka. The fact that Indra has an enemy, that light is sometimes overwhelmed by darkness, does not annihilate the belief in the supremacy of one of these two contending powers. The gods are always conceived as different in kind from their opponents. The gods are worshipped, the demons are feared. If, therefore, we call the ancient religion of Zoroaster dualistic, the same name might be applied to the Vedic religion, as far as it recognizes Vritra and other powers of darkness as dangerous opponents of the bright beings. Indeed, I doubt whether there is any religion which is dualistic in the sense of recognizing two divine antagonistic powers as perfect equals. Even races who offer sacrifices to evil spirits only, are not to neglect the good spirits, do so because they trust the latter, but are afraid of the former. Wherever there is a belief in a devil the devil may be very powerful, but he can never become supreme. He is by his very nature a negative, not a positive concept, just as night is conceived as a negation of day, not day as a negation of night. No doubt the powers of evil in the Avesta are different from the powers of darkness in the Veda. They have assumed a decidedly moral character. But they are the same in origin, and it is owing to this that they never have, never could have, attained to perfect equality with the good and Wise Spirit, Ahura-mazda.

The same source which supplied man with religious concepts, produced also a number of ideas which cannot claim to be called religious in any sense, least of all in that which we now connect with the name of religion. We saw how in the Veda the concept of fire had been raised higher and higher till at last it be-

* From a Report in the London *Christian World*, copies of which were kindly sent us by Prof. Max Müller.

came synonymous with the Supreme Deity of the Vedic poets. But in the monstrous birth of Hephaestus, likewise a representative, or, as we sometimes say, likewise a god of fire, in his disgraceful ejection from the sky, in his marriage with Aphrodite, to say nothing of the painful *démouement* of that ill-judged union, there is very little of natural religion, very little of 'the perception of the infinite under such manifestations as are able to influence the moral conduct of man.' These mythological stories are chips and splinters from the same block out of which many a divine image has been chiselled by the human mind, but they ought nevertheless to be carefully distinguished from that original block.

This distinction however has not only been neglected, it seems often to have been wilfully neglected. Whenever it was necessary to criticise any of the non-Christian religions in a hostile spirit, these stories, the stories of Venus, and Vulcan, and Mars, have constantly been quoted as showing the degraded character of ancient gods and heroes, and of pagan religion in general. This is most unfair. Neither does this mythological *detritus*, not to say, rubbish, represent the essential elements of the religion of Greeks and Romans, nor did the ancients themselves believe that it did. We must remember that the ancient nations had really no word or concept as yet for religion in the comprehensive sense which we attach to it. It would hardly be possible to ask the question in any of the ancient languages, or even in classical Greek, whether a belief in Hephaestus and Aphrodite constituted an article of religion. It is true that the ancients, as we call them rather promiscuously, had but one name for their gods, whether they meant Jupiter, the *Deus Optimus Maximus*, or Jupiter, the faithless husband of Juno. But when we speak of the ancients in general, we must not forget that we are speaking, not only of Homer and Hesiod, but likewise of men like Herakleitos, Aeschylus, and Plato. These ancient thinkers knew as well as we do, that nothing unworthy of the gods could ever have been true of them, still less of the supreme God; and if they tolerated mythology and legends, those who thought at all about these matters looked upon them as belonging to quite a different sphere of human interests. If we once understand how mythology and legends arose, how they represent an inevitable stage in the growth of ancient language and thought, we shall comprehend not only their outward connection with religious ideas, but likewise their very essential difference. But while on the one hand it is quite true that the sources of religion and mythology are continuous, nay, that certain concepts which in their origin might be called religious, wither away into mere mythology and romance, we shall see that it likewise happens, and by no means

infrequently, that ideas, at first entirely unconnected with religion, assume a religious character in the course of time.

This is an important subject, but beset with many difficulties. Of course, the deification of an animal, such as an Egyptian Apis, or the apotheosis of a human being, such as Romulus or the Emperor Augustus, presupposes the previous existence in the human mind of the concept of divinity, a concept which, as we saw, required many generations for its elaboration. Again, the attribution of a divine sanction bestowed either on customs or laws presupposes a belief in something superhuman or divine. But, after a time, all this is forgotten, and these later developments of religious thought are mixed up with the more primitive elements of religion in a hopeless confusion.

In India we are able to prove by documentary evidence that the concept of Fire, embodying the concepts of Warmth, Light, and Life, was raised gradually to that of a divine and supreme being, the maker and ruler of the world. And if in the Veda we have the facts of that development clearly before us, it seems to me that we have a right to say that in other religions also where Fire occupies the same supreme position, it may have passed through the same stages through which Agni passed in the Veda. By the side of this theogonic process, however, we can likewise watch in the Veda the beginning at least of a mythological development which becomes wider and richer in the epic literature of India. This side is most prominent in Greece and Rome, where the legends told of Hephaestus contain but few grains of Agni as the creator and ruler of the world. Lastly, the ceremonial development of Fire is exhibited to us in what has sometimes been called fire-worship, but is in most cases merely a recognition of the usefulness of fire for domestic, sacrificial, and even medicinal purposes. These three sides, though they have much in common, should nevertheless be kept carefully distinct in the study of religion.

It may be said, in fact, it has been said, that the definition of religion which I laid down in my former course of lectures is too narrow and too arbitrary. In one sense, every definition may be said to be arbitrary, for it is meant to fix the limits which the definer wishes to assign to a certain concept or name. Both in including and excluding, the definer may differ from other definers, and those who differ from him will naturally call his definitions either too narrow or too wide. I thought it right, for instance, to modify my first definition of religion as 'the perception of the Infinite,' by narrowing that perception to 'such manifestations as are able to influence the moral character of man.' I do not deny that in the beginning the perception of the Infinite had often very little to do with

moral ideas, and I am quite aware that many religions enjoin what is either not moral or even immoral. But though there are perceptions of the Infinite unconnected as yet with moral ideas, I doubt whether they should be called religions till they assume a moral influence. On this point there may be difference of opinion, but every one may claim the right of his own opinion. If some religions sanctify what is immoral, or what seems to us immoral, this surely would not disprove, on the contrary, it would prove, the influence of religion on the moral conduct of man.

We are told, for instance, that the pre-historic Hebrews killed their first-born in sacrifice to their God. Abraham came very near doing the same thing. Jephtha killed his daughter, and David killed the murderers of the son of Saul, and kept them hanging in the air all summer long, to remind his God that Ishbosheth was avenged. If you catch a Yezidee in the act of stealing, he will tell you that theft is a part of his religion. If you catch a Thug in the act of assassination, he will tell you that murder is to him a religious rite. If you reprove the Todas of the Nilgheri Hills for living in polyandry, they will tell you that this is the very groundwork of their religion. If you reprove the Mormons for living in polygamy, they will remind you that this is the Biblical chart of their faith.

Now, suppose that all this were true, would it not prove the very opposite of what it is meant to prove? If religion, as based originally on the perception of something infinite and supernatural, can induce men to commit acts which they themselves, or which we, at least, consider doubtful, or objectionable, or altogether criminal, surely it shows that religion, even in this extreme case, exercises an influence on the moral character of man such as probably nothing else could exercise. From the moment, therefore, that the perception of something supernatural begins to exercise an influence on the moral nature of man, be it for good or for evil, we have a right to say that it is religious. Even mere mythology, if it should determine the moral activity of man, as it has both in ancient and modern times, has a right to be called religious. Nay, even ceremonial, unless it has become totally unmeaning, may claim to have exercised an elevating influence, and so far have a right to be called religious.

THE AIMS OF ETHNOLOGICAL RESEARCH.*

ETHNIC PSYCHOLOGY, MORALS, RELIGION, ANIMISM.

BY DR. TH. ACHELIS.

II.

IN our previous article we referred to the indispensability and importance of classified collections.

It would carry us too far to give at this juncture a detailed explanation of the difficulties to be encountered in obtaining these indispensable requirements, and of how cautiously the comparative psychological method must proceed when dealing, as it must often do, with primitive races that possess no literary traditions. Yet one point demands a brief consideration; for an unfounded aspersions upon Ethnology is frequently associated with it. It is our indifference to chronological order. As before stated, it is to be regarded as a fact based upon a mass of indisputable and unassailable material, that the beginnings of the social life of mankind on earth everywhere exhibit unusual resemblances, and that this similarity of psychological structure is not restricted by topographical and historical barriers. Now, as Ethnology is only concerned with an exact exposition—that is, one established by induction—of the development of the general and universally observable forms of social organization mentioned, it is manifest that a chronological perspective of an isolated epoch in history would have no significance whatever so far as this object is concerned. If we can determine with approximate certainty that the clan, or peace-confederacy, founded on blood-relationship, is the germinal cell of all later differentiations of civilization, it is totally immaterial whether in our process of proof we refer to peoples at present existing in a state of nature, or whether we refer to the prehistoric stages of nations long since extinct. Like causes and like conditions, in their organic connection, are alone the determining factors here; but at what time, that is, in what century according to our chronology, they have operated to produce observed results is to the universal perspective of Ethnology a matter of entire indifference. Historical doctrinarism alone can close its eyes to this truth, and withhold its recognition of these words of Bastian's: "Ethnology inspects by comparison the elemental psychic processes of human life, and seeks genetically in each of these elemental processes for fundamental germinal principles. Concrete history, on the other hand, has for its object the solution and explication, in every instance, of the intricate problems that result from the action of geographical natural influences upon peoples in a state of nature, as well as from the immaterial spiritual factors in the cross-currents of a matured civilization."

Coming now to the task we have set ourselves of marking out the purpose and mission of modern Ethnology, it will appear from our former remarks that absolute completeness is not aimed at. An endeavor will only be made to emphasize the leading principles and the most important achievements of the new science. Although the master-spirit and founder of Ethnology, A. Bastian, will be in the main our guide, we

*Translated from the *Deutsche Rundschau* by *μικρ.*

shall be obliged to supplement our exposition by reference also to the work of other celebrated investigators.

To Oscar Peschel, the renowned geographer, is the honor chiefly due of having elucidated the fundamental view-point of this science, and of having first introduced this new conception of the world into remoter circles. Indeed it was a matter of primary importance to establish a firm and definite basis of criticism as a bulwark against the humors of *Æstheticism*. Many writers in dealing with savage peoples have felt obliged to assume a slow moral decline from an original Paradisian state of purity, while others have seen in savages the impersonation of idyllic gentleness and simplicity as yet untouched by the vices of civilization. As a classic demonstration of this sentimental rhapsodizing our author quotes this saying of a traveler: "What! They, the dreaded savages! They are timid children of nature, happy, if no evil befalls them?" And he relates that the day after the remark they slew the traveler.

Similarly one-sided and untenable is the theory, still often maintained, of a state of utter animal obtuseness and barbarity. All accounts agree as to the non-existence of any such primitive tribe as is lacking in the scantiest vestiges of human intelligence and civilization. We must ever bear in mind, though, that we are not to exact too much from this fact. Religion, law, art, and the like, are intelligible in their later differentiation only, as the products of a highly advanced civilization. But in their invisible beginnings they exist in every organized type of our race; for it stands to reason that evolution can create nothing new, but can only develop latent germs.

The fact of the rapid extinction of aboriginal tribes when brought into contact with higher forms of civilization, is, as Peschel thinks, frequently misinterpreted. He says: "Murderous oppression is, above all, not the cause. The Spaniards are often enough taken to task for excessive cruelty. We will not deny that they have freely stained their hands with Indian blood; but it was done from cupidity alone, and not from blood-thirstiness. Extermination was always denounced; it was forbidden by laws, although their enforcement was ineffective. The transatlantic history of Spain knows no instance to compare with the criminal depravity of the Portuguese in Brazil, who scattered the clothing of scarlet-fever and small-pox patients about the plains, that these diseases might be thus artificially spread among the natives; or with that where the springs in the deserts of Utah, from which the Indians were wont to drink, were poisoned with strychnine; or with that where the wives of Australian settlers mixed arsenic with the food they gave the famine-stricken natives; or with that where the English

settlers of Tasmania shot down the native inhabitants of the country, when they had no better food for their dogs. Yet neither cruelty nor oppression has as yet fully exterminated a race of men. No new disease, not even small-pox, has extirpated a nation, much less the plague of intemperance. A still stranger angel of death hovers above these once happy and joyous races of men—the *tadium vite*, or weariness of life."

This cause of extinction, based upon various observations, the author derives from the diametrical contrariety of mental organization developed in races of lower and higher stages of civilization; the discomfort of transition from the state in which they have hitherto vegetated, to a state which is farther advanced and more fraught with toil and exertion; the extraordinarily slight regard for life so characteristic of the aboriginal tribes among which this extinction occurs.

Whatever solution this question may meet with (for physical and particularly structural factors are also to be taken into account), yet in another direction, bearing upon the clarification of our notions of morality, Peschel has undoubtedly established the correct criterion. It well characterizes the narrow basis upon which our conception of the world has arisen, that we are inclined to regard our own ethical ideal as absolutely the highest, and to exalt it to an *a priori* dignity. A trifling, and yet in the use that is made of it, a significant, instance of this dangerous and hasty way of generalization is offered by the sense of shame, which a wide-spread error is wont to associate with the most complete practical covering of the body possible, in accordance with the European idea. "The more familiar we have become with foreign customs through extensive inquiry, the more firmly has it become established that nudity and modesty are not incompatible, and further, that the sense of shame in different nations demands that at one time one part, and that at another time another part, of the body shall be covered. If a pious Moslem from Ferghana were to attend our balls and behold the denudations of our wives and daughters, and the half-embraces of our so-called round dances, he would marvel in secret at the forbearing patience of Allah, that he had not long ago let loose the sulphurous fires of heaven, upon our sinful and shameless race. However, before the appearance of the Prophet the veiling of women was not customary in the East. The Countess Pauline Nostiz caused deep embarrassment among the high ladies of the royal harem of Maskat for approaching them without a mask of gauze. Not even does a mother see the uncovered face of her child after its twelfth year, whereas transparent robes make body and limbs plainly visible." On the other hand, there are peoples who (compelled by the climate) cover their bodies com-

pletely, and yet indulge in the most wanton of moral excesses.

However, although the nude human body was the province in which the nascent sense of beauty first exercised itself, so that persons not tattooed even now excite in savages a feeling of deep contempt; yet, notwithstanding this fact, clothing has very considerably promoted our original æsthetic ideas. "The want of clothing first arose with the consciousness of a more exalted dignity. It proclaims to us an endeavor firmly to mark the line of separation between man and beast. It is not the mere vanity of advanced age, which would seek to withdraw from view the loss of youthful charms, but the desire awakened in early youth, to throw a veil upon all unmerited degradation imposed upon us by the care of our animal bodies, and to appear before others as pure and as fair as the lily in the language of the Gospel."

If Ethnology is to furnish a collective picture of the mental life of mankind, it will be first necessary to trace among the different nations of the earth the origin and growth of this psychical world in its organic continuity as presented in the history of religion. And it is comparative psychology as expounded by Bastian and Tylor that is appointed to introduce lucidity and order into this chaos of apparently inexplicable incongruencies and ridiculous travesties, and thereby to render possible an inductive explication of our supersensual ideas. In this instance also, it is evident that the social view-point is the one that is alone productive of results. Only in joint and unceasing interaction, separated but by a mobile line from superstition, are the great systems of Belief fashioned and formed. Man lives everywhere under the ban of his ideas. And especially so the savage, who is endowed with a highly sensitive imagination and who lacks the correlative power of sober thought. The less familiar he is with the causal connection and relations of the grand elemental occurrences of his environment, the greater is his apprehension of the crushing power of the many enigmas that threaten him, and he will content himself with any hypothesis of explanation. Bastian has aptly pictured this ineffectual effort of the savage to place himself aright in the world, and likewise the intellectual reaction which follows: "The savage soon weakens and flags in the work of analytically disintegrating that which he sees before him, he accepts the existence of the Unknown as such, and with this signification assigned, he enters it into the catalogue of his ideas. He has thus voluntarily established within himself a principle of despotism which he must obey as slave and serf until his reason shall have succeeded in resolving it into its constituent elements and he shall have thus become able to control it. . . . With the acceptance of the

Unknown the savage has admitted an unmeasurable quantity into the succession of his ideas, an x of undetermined and indeterminable value, which in every intellectual problem, in every calculation of an intellectual series, will be the qualifying factor, and will control the process. The savage is without interruption helplessly subject to the tyranny of this Unknown. He sees it on every hand. It peeps out from every object in nature. Physical objects he dare not touch. The plant that is necessary for nourishment and the preservation of his life, dare not be picked without ceremonies of atonement." The same is true of his entire environment. The well-known legal principle of *res nullius* has no meaning for the savage. All that is strange and unwonted inspires him with immediate fear. Only with his equals does he associate without constraint. A stranger, a diseased person, are to him objects of solemn dread.

This bent of reflection especially associates itself with the interruptions of normal existence; as with severe illness and death. For in these cases every explanatory analogy is lacking, and the dread horror of an unseen power of destruction seizes man. "The savage in the jungle fancies he sees a demon among the branches of the trees, fancies he sees the demon descending upon him, grasping his body with icy hand and violently shaking it in chill and fever. And on the other hand when we call it miasma, the difference is in reality not so great. . . . The notion of a demon, of a spirit, is for the man of nature too pertinent, too available and too comprehensible to be displaced by an unmeaning and jingling word. On the contrary he sees the demon in everything; he spiritualizes all nature; he refers all her processes to superhuman agents." Yet this dreadful demon, in other respects fashioned after the likeness of man, is but a mighty figure from the great Land of Spirits with which the savage peoples the world, and it will necessitate a more exact analysis to understand the full significance of such psychical creations.

Aside from Bastian, the establishment of the so-called theory of animism is particularly due to the labors of C. Tylor. (Compare his works "Primitive Culture," "Early History of Mankind," and "Anthropology.") "Animism," he says, "takes in several doctrines which so forcibly conduce to personification, that savages and barbarians apparently without any effort, can give consistent individual life to phenomena that our utmost stretch of fancy only avails to personify in conscious metaphor. An idea of pervading life and will in nature far outside modern limits, a belief in personal souls animating even what we call inanimate bodies, a theory of transmigration of souls as well in life as after death, a sense of crowds of spiritual beings sometimes flitting through the air but

sometimes also inhabiting trees, and rocks, and waterfalls, and so lending their own personality to such material objects—all these thoughts work in mythology with such manifold coincidences as to make it hard indeed to unravel their separate action."

Here belongs every conception of nature, whether it be in the delicate æsthetic perspective of Grecian art or in the gloomily misshapen and distorted forms of Fetichism. Animism, being thus uninterruptedly bound up with human existence, is accordingly the primitive basis of all religions. We, by reason of our one-sided mechanical methods of viewing things, are no longer able to comprehend it in all its phases. So that Spiritualism, the modern revival of this great psychical power, appears very strange to us. The greatest impulse to this organically operating creation of spirits springs from the phenomenon of death, which so violently startles the ordinary course of thought, and which the minds of rude men therefore mark as anomalous and unnatural and do not regard as the natural and necessary result of chemical and physical factors. "The great question that forces itself on their minds is one that we with all our knowledge cannot answer, what the life is that is sometimes in us, but not always. A person who a few minutes ago was walking and talking with all his senses active, goes off motionless and unconscious in a deep sleep, to wake after a while with renewed vigor. In other conditions the life ceases more entirely when one is stunned or fallen into a swoon or trance, where the beating of the heart and breathing seem to stop, and the body, lying deadly pale and insensible, cannot be awakened; this may last for minutes or hours, or even days, and yet after all the patient revives. Barbarians are apt to say that such a one died for a while, but his soul came back again. They have great difficulty in distinguishing real death from such trances. They will talk to a corpse, try to rouse it and even feed it, and only when it becomes noisome and must be got rid of from among the living, they are at last certain that life has gone never to return. What then is this soul or life which thus goes and comes in sleep, trance, and death?" *

With the addition of other motive factors, particularly dreams, the idea of the soul was naturally formed, which as an immaterial principle did not perish at the same time with the body, but would lead an independent existence, conceived, of course, in many different phases. For times so extremely realistic it is quite intelligible that this strange factor was not conceived in the abstract, but on the contrary incarnated in physical functions. Thus the soul appears at times as breath, vapour, shadow (as in the well-known scene in the *Odyssey*) and then—more physio-

logically—as blood. The idea, having once originated, is necessarily developed in accordance with natural laws to more comprehensive forms, and is continually absorbing more extended provinces of moral activity. On the one hand we find the care of the grave, the preservation of the body (embalming), and the worship of the liberated soul, so incomparably mightier after death (among the Egyptians); the All Souls' feasts, and feasts in honor of the dead, held in common with the Japanese and the Roman Catholics; or the fearful sacrifices which are offered to the soul of a mighty chieftain at his grave; the burning of widows by the Hindus, suppressed with difficulty only a few decades ago; and finally the loathsome forms of cannibalism based upon the reception of blood. On the other hand, homage to heroes in ever increasing gradation, until their worship becomes stamped upon a whole nation. And, as in Central Africa, the gods often prove to be incompetent in practical life to ward off approaching danger, so that they must be displaced in favor of new fetiches, so, at times, in the great struggle for spiritual dominion over civilized nations the ancient powers must grudgingly give way before a strange and conquering host of new divinities. Thus the Persians banished their one-time Aryan saints to the Kingdom of Ahriman, and the Germanic divinities that had planted themselves so deep in the hearts of our ancestors, lingered on after the influx of Christianity in the shape of ghostly cobolds and fiends. Passing by the well-known forms of metempsychosis in India and Egypt, the idea of the regeneration or incarnation of the highest God, so wonderfully potent in history, demands short notice. It has perhaps received its most marked development in the originally atheistic religion of Buddha, who appears to the faithful unto the end of time in the ever renascent person of Dalai Lama. This idea, which surpasses in boldness of conception, all similar ventures of western Catholicism, is adhered to with wonderful tenacity by that church—so tenaciously, in fact, that at this moment (1888) there is assembled at the central seat of Buddhist faith, at the unapproachable and holy sanctuary of Lhassa in Thibet, the council of fathers, to espy some new heir of divine wisdom for the place left vacant by its late dignitary.

[TO BE CONCLUDED.]

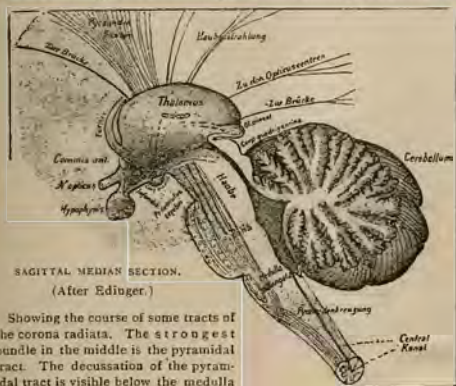
THE CORTEX AND ITS RELATIONS.

THE end-stations of the innumerable fibres of the corona radiata are the gray cells of the Cortex. These gray cells form the ganglionic element of the hemispheres. In the human brain they are associated among themselves by many systems of commissural fibres, which although extremely complex and numerous, are yet very economically arranged. Almost every prov-

* Tylor.

ence of the brain stands in direct relation with other provinces.

The white fibres of the brain accordingly consist first of ascending, and secondly of descending nerves, all of

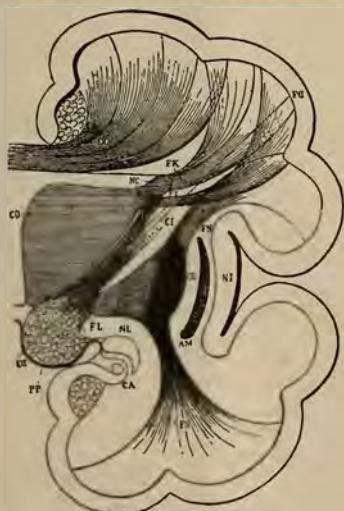


SAGITTAL MEDIAN SECTION.
(After Edinger.)

Showing the course of some tracts of the corona radiata. The strongest bundle in the middle is the pyramidal tract. The decussation of the pyramidal tract is visible below the medulla oblongata.

The rays of the tegmentum (*Haubenstrahlung*) rise from the tegmentum (*Haube*).

There are two connections with the Pons (*Brücke*).



COMMISSURAL FIBRES OF THE HEMISPHERES. (After Edinger.)

Diagram of the connections between the Striped Body and the Cortex.
(After Hugué, reproduced from Charcot.)

NC, Nucleus caudatus.
CO, Truncus opticus (French, *coche optique*).
NL, Nucleus lentiformis, having three segments.
AM, Claustrum (French, *avant* mar).
CI, Capsula interna.
CE, Capsula externa.
PP, Crus cerebri.
CA, Cornu Ammonis.

NI, Insula.
FL, Fibres of crus in connection with nucleus lentiformis.
FN, Fibres of nucleus lentiformis in connection with cortex.
FK, Fibres of nucleus caudatus in connection with cortex.
FD, Direct fibres, establishing a direct connection between cortex and crus.
CC, Corpus callosum.

which are gathered together in the capsules. A dissection of these bundles would therefore destroy the connections of the Cortex with all the lower centres of the nervous system. Through these narrow passages all sensory impressions rise into, and all voluntary motor impulses descend from, the hemispheric region. But besides the ascending and descending fibres, there is a third class which we call commissural fibres, serving the purpose of inter-communication among the cortical cells, and establishing relations also between the cortex and the hemispheric ganglions (*nucleus caudatus* and *nucleus lentiformis*).

There are commissural fibres which interconnect the two hemispheres. The most important tract of these nerves forms a thick and broad body of a tough structure, called *corpus callosum* (German *Balken*). A smaller tract of this kind is the anterior commissure. Fibres of the anterior commissure inter connect both temporal lobes, while the corpus callosum appears to bring all other parts of the one hemisphere into relation with the corresponding parts of the other.



CORONAL SECTION THROUGH THE BRAIN,
Showing the connections between both Hemispheres by the corpus callosum and the commissura anterior. (After Edinger.)



FIBRE PROPRIE.
(After Edinger.)
Nerve fibres connecting adjacent circumvolutions.

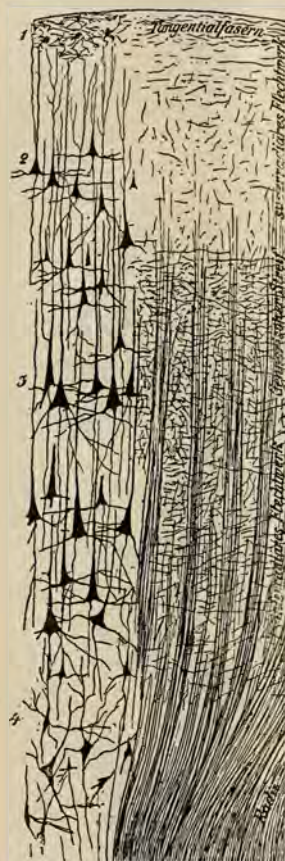
The most important bundles that associate the different provinces of the same hemisphere are the *fasciculus arcuatus* (arching bundle), the *fasciculus unci-*



COMMISSURAL FIBRES OF THE HEMISPHERES. (After Edinger.)

natus (the hooked bundle), the *fasciculus longitudinalis inferior* (the lower longitudinal bundle) and the *cingulum* or girdle.

According to experiments made by Charcot, a dissection of two-thirds of the front part of the internal capsule produces paralysis, while a dissection of the posterior limb, the third and hindmost part of the capsula interna, is accompanied with anæsthesia. This proves that the anterior fibres of the capsule are mainly motor, and the posterior fibres sensory nerves.



STRONGLY MAGNIFIED SECTION OF CORTICAL SUBSTANCE.

(After Edinger.)

(Taken from the frontal lobe of a human brain.)

The most superficial layer of gray cells (1) is covered with a network of extremely fine white fibres (tangential fibres); the cells of the lower strata are the larger, the deeper they are situated. The second layer passes gradually into the third, containing large pyramidal cells. The fourth layer contains smaller cells.

These four layers are intersected by white fibres which, enumerating them from below, Edinger calls, a) radii or medullary rays; b) inter-radiary network; c) Grennary's layer (called after Grennary who described these fibres); d) superradiary network; and e) tangential fibres.

The right part is prepared with Weigert's Haemotoxyline, the left part with Golgi's sublimate, showing on the left side the fibres and on the right side the gray cells only. There are many more gray cells than appear in the diagram. Their number is reduced in order to show their relations more clearly. The gray cells appear somewhat larger than they ought to, because the sublimate employed, according to Golgi's method, not only colors the gray substance, but fills the hollow spaces round the cells and their processes also.

The Cortex, or gray substance of the hemispheres, is a very complex substance, which shows a great variety in the different parts of the brain. It consists of several layers of gray cells of different size embedded into white fibres. The adjoined diagram represents a strongly magnified section of the Cortex, taken from the frontal lobe, and prepared with two different chemicals. The left side makes the gray cells come out

strongly, while the white fibres disappear. In the left side, on the contrary, the gray matter disappears, while the white fibres come out so as to be plainly visible.

P. C.

THE COMMONWEALTH OF ICELAND.

BY ALBERT H. GUNLOGSEN.

I.

FROM their direct bearings upon the ancestral history of the Teutonic nations, the annals and social institutions of the old Icelandic Commonwealth, to impartial and enlightened students of history, assume an exceptional importance. In fact, the laws and institutions of that northern Commonwealth, strictly speaking, belong to the *race*, but less so, or not at all, to the middle-age of Europe. As a Germanic, racial study the subject, indeed, is teeming with ethnological and historical interest, and we are here confronted by an astonishing wealth of reliable and accessible sources of information. A certain class of anti-Teutonic and superficial writers of modern history have affected to frown upon the authority of the Icelandic *Sagas*, although as regards their general veracity, it has been correctly observed by a well-known English writer, that "much passes for history in other lands on far slier grounds, and many a story in Thucydides or Tacitus, even in Clarendon and Hume, is believed on evidence not one-tenth part so trustworthy." For a general, popular knowledge of the social and intellectual life of Iceland in the days of her Commonwealth, I may refer the English-speaking reader to the article "Iceland" in the British Encyclopædia, and to Sir George Webbe Dasent's Introduction to his version of the "Nial's Saga" and to the great Cleasby-Vigfusson, Icelandic-English Dictionary; but for a thorough historical criticism of the institutions of the old Icelandic State, to the work of the German Professor, Konrad Maurer: *Island von seiner ersten Entdeckung bis zum Untergange des Freistaats* (Iceland from its first discovery until the collapse of the Commonwealth).

Iceland has been called "the home of the Eddas." It certainly preserved the Eddas; and Icelandic *Skalds* and writers also, to a considerable extent, arranged their mythological contents, and definitely fixed their poetical form, together with the undying, resonant language in which they still portray to us "the bright divinities of Asgard, that once protected men against the chaotic natural powers." On the other hand, the Eddas, are at present being subjected to a searching historical and literary criticism, concerning their absolute importance as the genuine sources of the primordial cosmogony and theogony of the Teutonic nations. This important question, however, does not detrimentally affect the political history of the Ice-

landic Commonwealth. The critics of the Eddas, at all times will find it sufficiently difficult to decide, to what extent, precisely, the Scandinavian *Asic* religion, independently of the Eddas, itself was a genuine and common Teutonic inheritance. In this brief essay it becomes an irrelevant matter, whether particular Eddic lays, as, for example, the lay of *Thrym*, be an Icelandic paraphrase of the classic legend of Prometheus; the lay of *Harbard*, of the feats of Hercules; that of *Völund* of the legend of Vulcan, and that of *Fjölsvinnr*, only a paraphrase of the "Amor and Psyche" of Apulejus. The odd hypothesis, surely, would suggest a rather exalted notion of the classical culture of the eleventh century Icelandic scholars, to whom such paraphrases have been attributed.

The broad fact remains, that the men, who in the ninth century colonized Iceland, were heathen Scandinavian Teutons; and that the very *ethical* elements, from which they built up their Commonwealth, were essentially from the outset heathen and Teutonic traditions, still untouched by the Christian culture of mediæval Europe. At that early date of settlement there also, doubtless, were found considerable Kelto-Norse ethnic ingredients, but, as shown by the institutions of the Commonwealth, they remained purely passive, without in the least affecting the exclusively Norse and Scandinavian social organization of old Iceland.

The *personal* history of these heathen Scandinavian settlers forms even an important and characteristic feature in the general history of geographical discovery and colonization, and particularly in that of the settlement of Iceland. Nearly all of these early navigators were wealthy men, belonging to the oldest and noblest clans of the North; and their peculiar methods of colonization must be said to have been perfectly consonant with their social condition, and previous habits. To better understand this, we only need to recall to mind the unique state of society which they had left behind.

The almost patriarchal condition of society in Scandinavia toward the close of the ninth century had been rapidly approaching its total disintegration, and at last both the *Asic* worship and the social institutions with which it had been intimately associated were swept away before a resistless historical tide that had set in from the south. The young Norwegian king, Harold Fairhair, after a struggle had successfully subdued one by one the many "fylkis"-kings, "Hersirs" and free "Uddallars" of the land, and made himself absolute monarch of all Norway. With the decisive battle of Hafsrfjord, against the last coalition of his stubborn foes, he had practically attained the object of his ambition. To the haughty, freeborn Norwegian chiefs Harold's innovation had been only

unbearable tyranny, and a usurpation of their own time-honored proprietary rights. It really was a step in advance in the resistless march of civilization and progress.

But then, a hurried and mighty exodus of indignant, irreconcilable Norwegian chiefs set in. From every petty "fylkis"-kingdom and "Hérað" in the south, through the entire length of the land, they resolutely took to the sea. In their black, dragon-headed boats they steered westward toward the British Isles—the well-known course of their usual summer-expeditions. The Faroe-Isles in mid-ocean were settled; next the Scottish Isles—the Orkneys, Shetland, and the Western Isles. All these for a time became the rallying points and true home of the Vikings, whence still spitefully they defied the power of Harold, and directed their descents, not only upon Ireland and Scotland, but even upon the coasts of Norway.

At this period we also read about the first visits of the Northmen to the most isolated of all the islands of the North-Atlantic. It was visited by three successive Viking navigators, and the last, the Norwegian Flóki Vilgerdarsen had given to the island the uninviting name of Iceland. It was, indeed, a strange region of surprising natural contrasts. It was situated about five hundred miles to the northwest of Scotland, and long before the advent of the Norsemen it had represented a kind of northern "Thebaide" to a number of morose and lonely Irish Culdees. Its forty thousand square miles were the creation of submarine, volcanic agency; but its admirable geographical configuration presented a number of deep, narrow fjords, alternating with grand bays, like the Faxe and Breidafjord. The interior consisted of vast tracts of lava-deserts and lofty ice-mountains. The narrow coast around the bays, and the banks of the fjords and the marshy districts were the habitable parts of the country; while from the bottoms of the fjords, a few miles inland, there extended fertile valleys with rich pastures, and sweet grasses. Despite the high latitude it was not a cold country; but there were frequent climatic fluctuations. The winters were never extremely severe, the summers were cool. The grass-crop might be injured by periodical drift-ice, causing heavy rains. The settlers found the country well-adapted for live-stock; and rivers, lakes, and the sea were teeming with fish. Such was the austere region, which, from a Thebaide of Irish Culdees, became the safe refuge of the imperilled household-gods and traditions of the self-exiled Norse Chiefs of the ninth century.

In the year 874 Ingólf Arnarson figured as the first permanent Norse settler of Iceland. The colonists were called "Landnámsmenn," and the time of colonization extended from 874 to 930. During this

comparatively short space of time the Island received all its settlers, to the number, doubtless, of over fifty thousand souls. At that time of history and of navigation this represented an unparalleled feat of colonization, and vividly illustrates the extraordinary rush of immigrants from Norway and from the Scottish Isles. The turbulent chiefs, who had been defeated at Hafsfjord, the obdurate old Vikings from Ireland and the Scottish Isles—all these "Zerschlagene Volks-trümmer," as they are called by Prof. Maurer, did not seem to furnish altogether desirable or favorable elements for the creation of an orderly commonwealth. But the splendid results entirely disproved this unfavorable assumption.

As men belonging to the oldest historical, or almost prehistorical, families of Scandinavia, they also, naturally, were thoroughly imbued with its racial culture, its mythology, poetry, laws, and traditions. We still know their names, almost to a man, as they have been recorded by the historian Ari Thorgilsson (1067-1148) in his "Landnámabók," or the Doomsday-book of Iceland.

This racial spirit is at once revealed in the formalities practiced at their taking possession of the land. The chief "hallowed the land," that is, he took possession with peculiar, solemn rites and sacrifices. He thereupon built a temple—the "Hof." As long as it was possible each appropriated broad lots of land, covering whole districts, which later he did not sell, but distributed among later comers or his freedmen. The chief, in his respective district, at once exercised the double functions of a civil magistrate and priest under the official name of "Godi." The word "Godi" apparently was of genuine Teutonic origin; Wulfila, in fact, renders the Greek *ἱερεὺς* by the Gothic word "Gudja." Still, with the Northmen there existed no priestly caste, no division of society into priests and laymen. In this instance the Godi's political jurisdiction, called "Thing," was restricted to the temple, which he had erected at his own expense, and which was regarded as his *private* property; but church and state were both one. Thus, the Godi's influence, whether as magistrate or priest, was mainly a personal following. His authority could never degenerate into tyranny, for the thing-men of his district at all times were free to leave his temple and local "thing," and to join another temple, in another district. Many of these Icelandic Godar had already occupied the same position in Norway. In Norway also the temple-service had been an essential side of public life; the political activity of the people were also sacrificial feasts; but in Norway, at least in Prof. Maurer's opinion, the *tyrannis* of the Godar had been partly hereditary and partly elective. In Iceland the double functions of the Godar certainly gravitated toward the temple.

In this manner, during the first five decades of the settlement, there had spontaneously been formed a number of mutually independent temple-communes—"things"—like small kingdoms round the coasts of Iceland; but unavoidably there soon was felt the urgent need of a supreme executive power. Sixty years after the date of settlement, by the common consent of all the Godar presiding over all the local "things," Iceland became a Commonwealth. A man versed in the law, Ulfsjót by name, was sent to Norway, and in 992 he brought back a code of law, based upon the code of the old Norwegian "gulathing." This urgent craving for laws was a characteristic trait, consonant with the directness of the Northman's nature. Ulfsjót's code was adopted by the new Commonwealth, and henceforth the general Icelandic "Althing" or parliament annually met on the volcanic plain of Thingvalla. This Althing was both a deliberative and an executive assembly—a parliament and high-court of justice in one; but the state was an aristocracy and oligarchy. The high-court of the Althing numbered only one hundred and forty-four persons—forty-eight Godar and ninety six other law-men, named by the Godar themselves. We must bear in mind, that as yet there were no written laws, and that everything was handed down by a faithful and marvelously tenacious memory and tradition. The laws also were mainly committed to memory. There were law-men,—men invested with no official position, but who enjoyed influence through their knowledge of the law.

In order to counteract the power of the one hundred and forty-four members of the Court of law, the assembled Althing appoints the first highest officer of the law, the so-called "speaker of the law." His duty was to recite publicly the whole law, and to give his legal opinion to all. The Speaker formally became the president of the Althing, but to curtail his power the people jealously excluded him from all share in the executive. With the year 930 this constitution of the Icelandic Commonwealth had been completed; the country further was divided into quarters, containing "things" and "god-orðs," and each quarter was divided into three judicial districts. This, moreover, is the renowned "Saga-time" of Iceland, covering a period of one hundred years, until the year 1030, during which the events of the Sagas were enacted, whether relating to individual families at home, or to the achievements of Icelandic men in foreign lands; but, of course, I am here prevented from entering upon the vast and complicated subject of the internal history of the Commonwealth. During the Landnáma- and Saga-period there still prevailed a "leonine" state of society, moving, "on a splinter of adamant." The domestic establishments of the chiefs, and of all free born men, were crowded with their retainers and serving people,

and they all "worked hard." The education of the boys was chiefly directed to the development of their muscles, the use of arms, running, riding, swimming, wrestling; others worked in wood and metals. They learned mythology, poetry, law, and traditional history, making verses and playing at draughts. The girls were fitted to become house-wives, doctors, surgeons. They carded wool, spun, wove it into cloth, and dyed it. The early Saga-time, without doubt, can boast a date, not merely of local Icelandic interest, but which conspicuously connects it with the world's foremost nautical and geographical events. In the year 982 an Icelandic farmer, a turbulent and "hard" citizen of the Commonwealth, Erik Thorvaldsson, affectionally surnamed "the red," banished from Iceland for repeated violent deeds, sailed westward, discovered and colonized Greenland. Setting out from his last Icelandic home at Oexney in the Broadfirth, he had merely followed the directions suggested by other Icelandic navigators. In the year 1000 his son Leif "the lucky" discovered the American continent. The documents relating to these events, particularly by modern American writers, have frequently been subjected to unfair and ignorant criticism. To obtain a comprehensive survey of the literature, bearing upon the subject, the critics must not content themselves with the well-known collection *Antiquitates Americanae*, but should include a voluminous and instructive work, written mostly in Danish by the renowned Icelandic philologist and antiquarian, Professor Finn Magnusson, entitled: "The historical monuments of Greenland"—"Grönlands historiske Mindesmærker." The critics, further, must not forget, that the Icelandic authors of an important and graphic portion of the American Sagas—the Thorfinn's Saga—are to be regarded as well-informed and highly trustworthy authorities upon the subject.

[TO BE CONCLUDED.]

THE RETURN OF THE NEGROES TO AFRICA.

BY PROF. E. D. COPE.

CRITICISM on my paper on this subject in *The Open Court* of January 23d, 1890, having apparently ceased, I am disposed to recur to the subject for two reasons. One of these is that I wish to reply to my critics; and the other is that Mr. Henry M. Stanley is said to have taken up the subject, and to be prepared to place his knowledge of Central Africa at the disposal of the proper authorities when the project shall have been decided on.

I am not surprised to find that the objectors to the project of transferring the negroes from this country to Africa have nothing but sentimental objections to urge against it. They call their objections ethical, and imagine that they have the support of justice in their position. Their understanding of the import of ethics and justice may differ from mine, but I suspect that their view chiefly results from an ignorance of some fundamental principles of biology, and their failure to perceive the bearings of these on the problem.

In order to present a rational objection to the plan of separat-

ing the Ethiopian from the Indo-European race by 3000 miles of water, its opponents should prove, first, that the negro and white races will not hybridize in the countries where they live together; or second, that the hybrid, if produced, possesses mental characteristics as good as those of the whites. Neither of my critics has done this, and until they do so, their objections are absolutely worthless. On the contrary, if the opposite of my position be proven, I will promptly abandon it. As to the question of injustice, we have to decide, if injustice there be, as to who shall be the sufferer. Shall we subject the higher race to deterioration; or shall we subject the lower to transportation without material loss to it. To do the former is to injure the entire human species. To do the latter is to continue the process which the abolition of slavery inaugurated, to teach the negro to stand on his own legs, a process which can be no more called injustice than the exercise of the methods of education, which the world has for us all from childhood.

The hardships of the transportation would be trifling, and not greater than those which thousands of immigrants to this country voluntarily undergo. I have lived in various parts of the world, and I could be happy in any of them, provided my family and friends were not too far removed. Now it is not proposed to separate families and friends in this exodus, so that the picture of sufferings from this cause, drawn by one of my critics, is quite imaginary. As to the country, Stanley states that parts of the Upper Congo region are admirable as places of residence, and free from the swamps of many of our southern states.

Abstract objections on the one side weigh little against facts on the other. Objections against compulsory education and against compulsory vaccination are of the same character, and are generally admitted to be valueless as against the important benefits accruing to mankind from the enforcement of these provisions.

I repeat again what appear to me to be the facts of the case. The characteristics of the negro-mind are of such a nature as to unfit him for citizenship in this country. He is thoroughly superstitious, and absolutely under the control of supernaturalism, in some generally degrading form, and the teachers of it. He is lacking in rationality and in morality. Without going further, these traits alone should exclude him from citizenship. Secondly, these peculiarities depend on an organic constitution which it will require ages to remove. Corresponding qualities in the lower strata of the white race, are modified or removed in a comparatively short time, on account of superior natural mental endowment. Thirdly, if he remains in this country he will mix with the whites until in a half century or less, there will not be a person of pure negro blood in it. It follows from this that there will be, in accordance with the usual rate of increase, an immense population of mulattoes, where there should be an equal number of whites. The deterioration thus resulting would tell disastrously on our intellectual and moral, and consequently on our political, prosperity.

In view of these facts, it appears to me that the surplus in the treasury could not be better spent, and the navy of the country be better employed, than in the transportation of these people to Africa, where they can work out their own destiny, whatever that may be. The necessity seems to me to be great and urgent, and nothing but an ignorance of the facts of the case can prevent its being felt to be such by every white citizen of this republic.

It is not denied by me that the negro has various merits, and that in particular instances men of that race have risen to deserved prominence. But the general result is not altered by these exceptions. Senator Morgan's bill, or something like it, should be passed promptly, and its provisions carried into effect before the burden becomes greater, and the material conditions beyond our control.

CORRESPONDENCE.

FREE-WILL AND COMPULSION.

To the Editor of The Open Court:—

In reply to a rationalistic criticism on the "Freedom of Will and Responsibility" the Editor of *The Open Court* makes the following curious statement: "And a free man must of necessity will and act as he does." It follows therefore that every one who is compelled to will and act as he does must be free.

According to the usual value of words the statement is contradictory, but without stumbling over the form of expression, I cannot see how a self-conscious person can accept the logic or the philosophy of such Freedom of the Will and responsibility. We do not hold accountable the stream for obedience to the law of necessity in its running or its babbling, nor can we hold a human being responsible for his action who has no freedom of will to do as he wills, only subject to the broad limitations of his material existence. Without such a freedom there can be no unrealized possibilities in life, no "might have been," no accountability either to his own organism or the "All," and no "promise or potency" of future improvement.

From this standpoint moral responsibility is a mere vagary of undeveloped organism—there can be no infraction of law in life or action, for the individual as a part of the whole has to conform to the cosmic laws of the All and whatever he does, right or wrong morally, as usually understood is in obedience to the rigid law of cause and effect over which he can have no control whatever. This philosophy logically extinguishes purpose, intelligent direction of energy, and Freedom of Will, and necessarily regret or remorse, and relegates human thought and action to the domain of mechanical energy. A philosophy that leads to such a conclusion, it seems to me, would be a dangerous substitute for Religion, until in the eternal sequences humanity becomes developed into a far higher and nobler state of existence. T. G. CONANT.

[Epictetus said: "No one can deprive us of our free-will;" and Schiller said: "Man is free even were he born in chains." All ethical teachers agree that a man can be held responsible for his actions only if he is free, or, in other words, only if he can act as he wills.

If there is any sense in the phrase, Freedom of Will, it means this and nothing else. A free man can act according to his will; he acts exactly as he wills. A slave cannot act as he wills. When a slave works for his master he acts under compulsion. When a free man works, say for instance an artist whose soul is full of an idea, he acts of his own freewill, for there is no one who compels him to work. The slave suffers violence, the free man's will suffers no violence. The slave's work does not result from his will; therefore he is not free. The artist's work does result from his will; therefore he is free. Yet the actions of both are determined and so are their wills determined. The slave is not willing to work, he is forced to work against his will by fear. The artist is willing to work, and his will is motivated by the love of his art.

If the phrase Freedom of Will is used in the sense that a man can will whatever he wills it is no freedom of will but simply a contradiction, a phrase without rhyme or reason. The mere idea that a man can will one thing and, being the very same man under the very same conditions, he could will another thing is an absurdity. A man might wish two different things that exclude one another. But he can will only one.

If will were not determined, it would be the abolition of the law of causality with regard to will. This would change all acts of will into arbitrary whims.

A cause that determines a rational being to will something is called a motive; and no man can have any will unless he has a

sufficient motive that determines his will. Insufficient motives cause wishes. A will without motive is as nonsensical as an effect without a cause. A man whose actions are not determined by motives cannot be made responsible for his actions and ought to be confined in an asylum.

Responsibility is the consciousness of a free man that he is the author of his actions and of their consequences. He himself, and also others have to bear the consequences of his actions, be it for good or for evil. A man who knows the laws of nature and especially also the moral law that pervades and builds society, and who has at the same time the good will to conform to it, he is a law unto himself. He will act morally, not from compulsion, but from free will.

A philosophy or a religion that does not recognize the rigidity of law has no right to teach ethics. What would be the use of implanting the motives of obeying the moral ought in the soul of man, if his will were not determined by any motives.—En.]

MODERATE NATIONALISM.

To the Editor of The Open Court:—

I have been greatly interested by the correspondence in your issue of the 8th inst. on the subject of competition. If you will permit, I shall offer a few practical remarks. The author of "Looking Forward" says: "Let us not be frightened by wolfish competition. It is better and nobler than it appears. . . ."

To this I would add, Let us be definite. It is safe to say that the cardinal principle of the current economy is *laissez faire*. From John Stuart Mill, to more recent writers, nothing is more strongly insisted on than the necessity of understanding the term capital. Nothing is more confused than the definition of the term. Men discuss about when a thing is capital and when it is not, and eagerly pursue a grain of wheat in its voyage around the world, and cry, now it is capital, now it is not. Let us endeavor to follow the suggestion of "the author" and "agree with facts." In point of fact the distinction between capital and not-capital cannot be relegated to the mind of the owner, Mill notwithstanding. In point of fact capital is the surplus of assets over liabilities. The various distinctions of "Paid up Capital," "Reserve," "Dividend Guarantee," and other funds, "Profits," are no more than divisions of the total capital, for book-keeping purposes. A man may bury it, burn it, or buy with it, but capital is what it is, no matter what he does or may intend to do with it.

But the notion that capital is only that which is owned by employers of labor has had serious effects. It naturally produced the principle of *laissez faire*. For if the agent of production should not be interfered with; and capital, one agent of production, is only that which is owned by employers of labor; then it follows that capital should not be interfered with, hence *laissez faire*. But if in point of fact capital be the surplus of assets over liabilities, and national capital the sum of individual capital, it becomes economical folly not to use the factor to the utmost extent which business-like prudence may allow. Hence what is called moderate nationalism, and the principle of protection, which is directly opposed to *laissez faire*.

I agree with the author in his objection to the prevailing "tendency to dream." I would myself also object to the prevailing tendency on his side to evade definite measures of reform. He says, "It is not the abolition of strife that we can hope for, it is only its humanization." Quite so. But by means of the investment of national capital by national vote, in railroads, telegraphs, telephones, mines, and commercial marine, and a truly national bank managed by government, and private banks abolished, national stock exchanges and markets, national currency, in a word moderate nationalism at once definite and practical.

MICHAEL CORCORAN.

CUSTER, SOUTH DAKOTA, May 16, 1890.

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AMERICAN AUGURIES.*

BY FELIX L. OSWALD.

V.

THE founder of the Utilitarian School defined the purpose of his reform as "the greatest happiness of the greatest number," and if we apply the same standard to the ideals of a Golden Age, we must admit that the brightest summer days of the New World will soon be over. East America will become a paradise of wealth in a sense far transcending all London or Paris superlatives, but the time is not far when the children of toil will have reason to regret the bygone age of free land and high wages, of cheap timber and fuel, and abundant venison. Ruskinism is losing ground; steam and automatic machines are encroaching upon the field of manual labor; the lubber-land of the Great West is passing into the hands of land-speculators, and in the East the growth of large cities, unavoidable monopolies, and continued immigration will soon develop new, and uglier, forms of the struggle for existence.

In the Old World that struggle has favored the progress of secular education by stimulating the appreciation of its industrial advantages. But it has also favored the propaganda of Socialism. The school-teacher and the Communist labor by different methods to equalize the extremes of social contrasts. In America the improvements of the better method will help to expose the fallacies of the other. "*Wissen soll nützen*," will be the motto of our educational reformers. Only useful knowledge is power. The colleges of the twentieth century will have little room for dead languages and supernaturalism; the past and the future will defer to the claims of the present; the text-books of the coming generation will teach the science of life. The demands of an emancipated age will be answered by a catechism of health, a grammar of political economy, a manual of natural science. Proficiency in the rudiments of social science will be added to the requisite qualifications of a voter. After a ten weeks' course in Bentham the pupil can be trusted through a ten years' training of his parochial mystagogue;—obscurism needs larger odds to compete with truth. The rule that prevention is better than cure holds good in the treatment of moral diseases.

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In "constructiveness," the genius of mechanical invention, the natives of Anglo-America exceed even their transatlantic cousins; but that will not prevent the nations of the Old World from reaping the fruits of our harvest, unless we supplement our natural advantages by a thorough system of technical training. The polytechnic schools of France and Prussia, rather than their white slavery and protective tariffs, have enabled their manufacturers to beat the British inventors on their own ground; for the three last International Expositions have proved that the cheapness of their products consists chiefly in the superior excellence of their workmanship.

"When I found our chief mechanical and civil engineers lamenting the want of progress in their industries," says Dr. Lyon Playfair, "and pointing to the wonderful advances which other nations were making; when I found our chemical and textile manufacturers uttering similar complaints, I naturally devoted attention to elicit their views as to the causes. So far as I could gather them by conversation, the one cause upon which there was most unanimity of conviction is that France, Austria, Prussia, Belgium, and Switzerland possess good systems of industrial education for the operatives and managers of factories and workshops, and that England possesses none."

At the last Paris Exposition, too, one of the jurors was compelled to admit that "so formidable did the industrial progress of other nations appear to us, that several meetings of jurors and exhibitors took place on the subject, and the universal impression was that the industrial development of other countries was due to the excellent system of technical education given to the masters of workshops, sub-managers, foremen, and even artisans . . . whilst, therefore, I believe that the English workman is possessed of greater natural capacity than any of his foreign competitors, I am of the opinion that he is gradually losing the race through the superior intelligence which foreign Governments are carefully developing in their artisans."

Yet in point of the systematic education of the technical classes, America is even behind Great Britain. With the rarest exceptions our machine-shops, factories, and laboratories are managed by clever empirics; the engineers, like the conductors, of our railroads, owe their preferment to seniority or nepotism, though

the frequency of disasters has proved by strong arguments *ad hominem* that routine-labor is not even the cheapest.

Before the end of the next fifty years our Board of National School Inspectors will include a United States Commissioner of Gymnastics. It seems strange that the Norwegian explorers of the New World should have omitted to utilize their great discovery; it is hard to understand how the Pythagorean theory of the solar system—the key to so many enigmas of the universe—could so long be eclipsed by an erroneous system; but it appears yet stranger that for the last fifteen centuries the world should have failed to profit by the still more important secret revealed by the medical philosopher Asclepiades, who used to prescribe a special course of gymnastics for every form of bodily ailment, and demonstrated that physical vigor is the basis of all moral and bodily welfare, as well as of permanent health.

Like ancient Italy, North America will soon be inundated by a tide of eastern refugees and eastern vices, and for the preservation of national health, a system of physical training would be a more efficient prophylactic than the quarantine of our sea port towns. The insane depreciation of all Pagan ideals and their culture of the manly powers has deprived us of a pleasure which the ancient Greeks would hardly have exchanged for all the comforts and luxuries of modern civilization; but, as usual, the war against Nature has thwarted the purpose of her enemies, for by suppressing the normal gratification of a natural instinct they have forced it to seek other outlets—physical excesses and brutal prize-fight by proxy. We cannot afford to ignore the influence of so potent an agency for good or evil; and even at this distance from its well-spring that influence might become a youth-restoring fountain of health and happiness. The enthusiasm that gathers around those pitiful substitutes for the festivals of the palaestra—our horse-races, cock-fights, and walking-matches—proves how easily the instinct of competitive gymnastics might be made to re-enter its ancient channel, with the might of a long-confined river. In natural capacity for the ardor of gymnastic emulation, the Anglo-Saxon race yields to no ancient nation, and in North America a popular system of physical culture would require only the establishment of a nucleus; its development and the organization of the details would take care of themselves. A few normal gymnasia, public examinations in the form of prize-exercises, a yearly prize-tournament with a government subvention as an incentive to private bequests, and the country would soon abound with athletic associations, county-Olympias, and champion clubs; the country-town idlers who now attend the arrivals and departure of every railway-train, would crowd

their local palaestras; prizes for running, wrestling and spear-throwing, and the rapture of gymnastic emulation in the presence of applauding friends, would turn thousands of boy-topers into young athletes.

As in the century of the Antonines, the combined physical and intellectual superiority of a great nation will inaugurate a period of long peace; but no millennium. For the evil of war there are many palliatives, but no radical remedies; no Boston Peace Congress will ever square the Cartesian circle of that problem. Theoretically it would be easy enough to unite the governments of the world in a general anti war league, and refer all disputes to the arbitration of an international Areopagus; but if any member of the Junta should take it in his head to question the competence of the Court and refuse to ratify its decision, the only way to coerce him would be the war-path. Warfare will continue while there are motives of rivalry between man and man; nature will not forego that potent means for securing the survival of the fittest.

But the battles of the future will probably be fought at long range. "The science of explosives," says Prof. Kirchhoff, "is only in its infancy; but the rate of its development promises, before long, to make our old-fashioned powder-guns comparatively harmless instruments. Chemistry is on the close track of an invention that will revolutionize our present system of warfare." He refers to the aero-dynamical effect of certain explosives. In a fifteen acre pond, a White-head torpedo, by the mere force of the concussion, would kill every fish in the water. The blue-fire explosion of the Chester fire-works demolished the buildings of the neighborhood by the force of a sheer air blast. In a lecture room, seating about two hundred students, the detonation of a five cubic-inch bubble of pure hydrogen would stun the whole audience, and probably kill the experimenter. The chemists of the future may devise means to destroy a whole regiment by the explosion of a single torpedo-shell, and reduce warfare to a long-range artillery contest.

But victory will still be biased by the quality of the indispensable human complement of such machines. Next to gymnastics, cold air is the healthiest tonic, and in the absence of physical culture many nations owe their superiority to the invigorating effect of climatic influences. It is a most suggestive fact that nearly all the war records of the human race repeat the history of the conquest or expulsion of southern nations by their northern neighbors. Carthage crushed by Rome; Rome by the Visigoths; South-Spanish Moors by North-Spanish Christians; South-German states worsted by North-German Prussia; South-Italian states by North-Italian Savoy; the Southern Turks defied by northern insurgents and harassed by northern rivals; South-Slavic states absorbed by

Russia; South-Mongol Chinese worried by North-Mongol Tartars. The principle of the rule is strikingly confirmed by its apparent reversion in the southern hemisphere, where the invigorating climate of Chili enables a small southern nation to bully a big northern neighbor. Climate, culture, and gymnastics combined, will more than secure our southern frontier; and identity of interests will probably help to preserve the peace with our northern neighbor, the quiet, thrifty, timber-selling, and cotton buying Scotchman of Anglo-America.

Domestic squabbles are unavoidable; but for the next century or two it augurs well for the stability of our Union that the late unpleasantness occurred under circumstances uncommonly well calculated to make rebellion unpopular. With the exception of the Anti-Reform League that baffled the plans of Joseph II., no other mutineers ever fought for slavery. The usual insurrection-valor was this time unavailing, and without very strong provocation the experiment will not be repeated for generations to come.

In the meantime that incurable tendency of our race which Jean Paul defines as "the factiousness of human nature, founded on the eternal dualism of earthly things," will expend its energies in party-contests, and it is not improbable that the watchwords of the factions destined to succeed the "ins and outs" of our present political rivals will express the principles of less indefinable divergencies. The free-trade controversy will before long become the prominent question of the day; but as a party issue it will be a "one-term question." The labors of Adam Smith have not been wholly in vain; the commercial-reform party need not bribe its voters; the discussion of its arguments would suffice to make them truisms, even if the real motives of their opponents had not already become visible through their cover of threadbare pretexts.

(TO BE CONTINUED.)

WANTED—AN ASSORTMENT OF ISLANDS.

BY JOEL BENTON.

OUR present era is, it would seem, in a ferment just now, over fantastic schemes and ideas. The different ways to reform the world are becoming legion. Not long ago, Henry George had the public ear mostly to himself; and, if you could only believe him, and the ineffable nonsense which he and his acolytes put forth, we might see all the evil in the world incontinently extinguished, by simply empowering the state to confiscate all the realty of landowners and turning it over to the community at large. Another sect pleads for cumulative taxation to prevent people from getting rich, as if it were not a hard enough thing already to attain to that condition. Some would tax legacies

stringently, or prevent inheritance; and there is really no end of things which glow furnace like in the heads of perfervid cranks for the proposed betterment of human life and human conditions.

Not one of these schemers ever thinks of facts as they are; not one of them offers a cure for crime, unthrift, laziness, debauchery, and imbecility. All start upon the idiotic assumption, that to be born into the human race, is to make payable from society to the individual the same share of the good things of earth, which rugged effort, suffering, toil, and self-denial, allot only to those who have, or who practice, these virtues and traits.

Perhaps the uppermost nostrum in vogue just now, is the Bedlamite scheme of Mr. Bellamy, for compacting—under the sonorous phrase "to nationalize"—industry and laziness, sin and virtue, into an inseparable compound, giving equal prizes to all; which is a neat way of nullifying the law of God and the will of civilization—inasmuch as it punishes thrift and virtue, and puts a bounty upon crime and laziness. For a nine day's wonder—an exploitation of fool-philosophy—it has held its own pretty well, and is still making a precious amount of noise out of all proportion to its title for serious consideration. The iteration and re-iteration of its claims have already become nauseating to the public nostrils, so that a relief from hearing more of its stridulous folly would be welcome to all sane intellects.

It occurs to me therefore, to ask, not only on its behalf, but for every one of these epileptic sects mentioned—and for others like them which follow as they suddenly subside—an assortment of islands, pleasantly located out of the hearing of the patient public, whose ears are tired, on which these several schemes can be separately tried and experimented with, by those who have such rhapsodic faith in them. Their exploiters must each and all be sick of a deaf and unresponsive public, which goes placidly about its way without thought or care for them. What better can they do then, than to select some island—each class of theorists for itself—and put thereon these several schemes at once in action? If they are right, and the indifferent world is wrong, they can in this way, set up "object lessons" which will prove more eloquent if successful—and prove so in one generation—than centuries of lectures and discussions to the world at large, which has already shown that it will not heed or listen.

It would be necessary that these islands should be some distance apart, and very comfortable to outsiders if they could be out of reach of all civilized mainlands; and, there should be one selected also for the anarchists, who believe neither in the existing order of things, nor in any scheme of order whatever.

If there are not enough islands procurable to go

around among them all, there are, at least, available tracts in Africa, where states might be formed to illustrate new theories, and yet be so far away from our sick, or believed-to-be sick, civilization, as to ensure a free and uncontaminated exercise of the different novel experiments. It might not be a boon to the Africans, but they have generally had no rights which white people have considered worth respecting; and, one more abuse for the sake of enlightening the world would not be half so grievous as are our present inflections.

I am really not speaking with levity, but with absolute earnestness. The world as we all admit, is not as perfect as it might be; and, if I sincerely thought the evolution that has given us such benefit as we *do* have is at fault, and a new one which I could write out as glibly as a merchant writes a receipt for bills paid, would heal all our social diseases, I should only be too glad to search for an island or for some remote land, within whose boundaries I could put my ideas into form and practice.

Nor are we without precedents for this mode of procedure. Readers of "Don Quixote" remember that Sancho Panza, who was a proverb maker and a philosopher, was given the island of Barataria on which to exploit his wisdom. He was, to be sure, a somewhat different character from the authors of our modern catholicisms and social panaceas. He knew but little, and he knew the limits, and often acknowledged the size of his ignorance; but, contemporary Sancho Panzas, however, think they know it all, and snap their fingers at the results of centuries of experience. But in spite of all this, we trust they (each and all of them) may get an island where they can set their different philosophies at work. We shall then not only be relieved from several varieties of pestiferous demagoguism, and be benefitted by the departure, but they, having free scope and no opposition, ought to rejoice in so delightful an opportunity and prospect. As Sancho's patron said to him, so can we substantially say to them: "God speed you, and govern you in your government, and deliver us all from a suspicion we have that you will turn the whole island topsy-turvy, since that heated brain of yours is but a sackful of proverbs, and stale philosophy." But then what matters it so long as they think with Sancho that, while they "are asleep," and their new dispensations are at work, "the great and the small, the poor and the rich, are all equal."

To abolish the evils in human nature, and bring in the millennium by merely having a free field for a specific social mechanism, is worth almost any sacrifice. Cowper's aspiration for "a lodge in some vast wilderness," where "rumors of oppression and deceit," and "man's inhumanity to man" could never reach him

more is just what is wanted; and we are sure no real reformer will scout our idea. Let us therefore have an island for every kind of social theory. The fanatics cannot leave us without a double benefit; for whether their various catholicisms prove wholesome or ill, it will be undeniably true that on such a mission as is outlined, they would "leave their country for their country's good."

COMPARATIVE ETHNOLOGY.*

DOMESTIC RELATIONS, ETHICS, AND LAW.

BY DR. TH. ACHELIS.

[CONCLUDED.]

FOLLOWING the historical development of the religious consciousness, the importance of which for ethical life has in our era of criticism been so often underestimated, comes a development of the conceptions of ethics, and in intimate connection with the latter a development of law as exhibited in its various phases throughout the world. As before and in similar cases, we must here bear in mind that all so-called questions of origin are speculative fictions, metaphysical somersaults. Inductive inquiry occupies itself only with the organic evolution of existing germs, which in the present instance are conditioned by social organization on the one hand, and on the other by the specific psycho-physical constitution of the individual. It is thus of primary importance to study closely the structure of that primitive clan-relationship upon the basis of consanguinity which we have characterized as the germinal cell of all later differentiations; since in it all ethical conceptions are contained. With the help of copious material, Ethnology has succeeded in displacing the current notion of an *a priori* and absolute morality, and in establishing in its place one which is relative, genetic, and which changes with its internal and external constituent factors. This slow advance of the moral sentiment is unequivocally revealed to us in the history of marriage, as treated in particular by the zealous English savant John Lubbock, in his works *Prehistoric Times* and *Origin of Civilization*.

A glance at the complete dissimilarity of the matrimonial relations of the two periods, will show how little the ideal of the present and the ideal of prehistoric times have in common. "From the standpoint hitherto assumed," says Bastian, "the family in its extension to clan, nation, and the like, formed the basis of society, and at its head in the circle of Aryan civilization appeared the *pater familias* and *pitar* (declared also by philology to be the protector) with his colleagues. But now that we are able to penetrate with the help of Ethnology into the primary foundations and sub-foundations of social organization, we

*Translated from the *Deutsche Rundschau* jupe.

find the family non-existent there; and from out of this phase of negative relations we see arising in misty outlines the *femina finis familiae*, which represents the family as *mater familias*." The complete agreement of accounts of tribes bearing no relationship to one another, no longer leaves it a matter of doubt that blood-relationship through a common mother must take the place of the patriarchal family as the fundamental form of development. Whence it is very obvious that entirely different conceptions of morality prevailed within this form of society. "Marriage," says Lubbock, "and the relationship of a child to its father and mother seem to us so natural and obvious that we are apt to look upon them as aboriginal and general to the human race. This, however, is very far from being the case. The lowest races have no institution of marriage; true love is almost unknown among them; and marriage, in its lowest phases is, by no means, a matter of affection and companionship." And Post speaks to the same effect. "Among primitive races distinctly marked matrimonial relations between the individual members of tribes do not obtain. The members of a tribe associate with one another without constraint, and it is only the physical preponderance of especially powerful individuals who rise to the rank of chieftains that is able to curb the propensities of their weaker brethren." *

Repugnant and revolting though this notion may be, it is still none the less ill-timed to oppose objective actual facts by considerations of sentiment. Not until the gradual dissolution of the original relation of consanguinity, not until the discontinuance of exclusively endogamous marriages (or connection solely within one's native tribe) and the development of exogamous relations (relations of marriage with other tribes as well) and the consequent displacement of the whole order of society, does the animal brutality of primitive times gradually recede before that most delicate of the relations of our modern moral world.

Especially important, and still surviving in rudimentary form in many old popular customs, is marriage by capture, which sank in the course of time to an informal symbol. After the paternal authority had increased in power and scope, consequent upon settlement in permanent abodes, marriage by purchase ensues (distinctly retained in the *coemptio* of Rome), where a wife is assigned to the highest bidder.

It is obvious that Ethics also underwent a radical and far-reaching transformation in the course of this revolution of society. Conjugal and filial love—not to speak of patriotism; the emotions of repentance, of conscience; the ethical estimation of our fellow creatures; forbearance from the violation of property rights, and the like: all these blessings of our culture

and civilization are either wholly lacking in those primitive periods of the organization of our race, or, if present, appear in the lowest and most rudimentary forms.

This idea of an evolution of our jural sense, or legal consciousness, has been elaborated by Hermann Post in various works ("Die Geschlechtsgenossenschaft der Urzeit," 1875; "Ursprung des Rechts," 1876; "Bausteine für eine allgemeine Rechtswissenschaft," 2 vol., 1880 and 1881; "Die Grundlagen des Rechts," 1884; all published in Oldenburg). The author formulates his critical point of view thus: "My aim is to build up a science of law by an inductive process. . . . I do not start with the assumption that there is innate in man something that is absolutely and objectively good or right, or that my individual ethical and jural sense is an infallible standard for the determination of what is good and what is bad, or of what is right and what is wrong. It is my purpose to find out what is good and right from the collective phases of the ethical and jural sense of mankind as they appear in the customs of all the nations of the globe, and in this indirect way I seek to discover and rectify the true content of my own individual moral and jural conscience. For the individual psychology whereon our present philosophy of law is almost exclusively based, I propose to substitute an ethical psychology. The starting-point of my investigations in the science of law will be the legal customs of all the nations of the earth, regarded as precipitates of the living jural sense of humanity; and from the basis thus formed I shall approach the question of what is right." *

It thus appears that law and custom in the primitive phases of social life, are approximately identical; and that, as the result of the decline of physical strength and the consequent dissolution of custom, legal conceptions come to assume sharper and more definite forms and set themselves up in direct opposition to life; a state of affairs well seen in the period of Byzantinism. Thus, whereas custom is the embodiment of the inner psychical side of social life, law rests in great measure upon external factors, and is bound up with social and climatic influences as well as particular historical conditions. With the Egyptians, whose attention was continually kept upon the supersensual by a rigid hierarchy and the subtlest of mythical speculations, religion entered into the immediate service of the law; just as to-day, under different conditions, the Koran serves as a juridical canon. In cases where, as in China, the relation of children to their parents was made the basis of morality, this relation is found to enter into the establishment of legal duties. And yet, as little as fixed *a priori* ideas in and of themselves go to make up the jural sense of a human

* *Grundlagen des Rechts*, p. 214.

* Preface to "Die Grundlagen," p. 10.

being, and howsoever inconstant may be the content of positive rules within the separate periods of organization, on the other hand it is quite a mistaken idea to assign to external causes alone the determining rôle in this process. "We find ourselves in the possession of a jural sense or consciousness in which the joint psychical life, the collective soul of a social community is expressed in forms of psychical manifestation. In so far as the social factor is operative here, the province of law includes and extends beyond the province of the individual; hence the jural or legal sense of man acts with irresistible power: a person is unable to evade the voice of his conscience, although his individual inclinations may impel him to an entirely different course. The relation between the jural sense and law is this: that the law appears as a precipitate of the jural sense of all the individuals that form and have formed an organized division of society. The jural sense of the individual appears in the physical world in the shape of acts, words, and signs; and from uniform repetition throughout the society appears there as a custom. Thus the individual jural consciousness appears immediately as the living source of law. It is not the motive power only in the province of practical law; it is also the factor which continually amplifies and develops the existing system of law. The legal conceptions which in a future period assume the character of customary laws and statutory rules, emanate from the minds of the different individuals constituting the peoples of the earth; and in the end all positive laws are nothing else than the winnowed products of individual legal conceptions, of the treasured stores through countless generations of countless active intellects."

It would be idle speculation to venture beyond this last attainable point of an innate sense able to distinguish conformably to the existing system between right and wrong, or to wish to enter into an examination of the organization of the individual or his relation to the all-comprehending mind of the universe.

We could naturally give but a broad and general outline of this new and promising conception of the world in our short sketch; yet we trust that we have in some measure elucidated the exalted aim of Comparative Ethnology to afford a history of the human consciousness in all its periods of organic formation. The devotee of this science will have to waive, it is true, many a pleasant prospect and expectation; yet the more firmly will the foundations of his knowledge become established thereby, and the more immediately will he feel, in spite of his individual frailty, his relationship as a part of the mighty All. Bastian has pictured this far-extended perspective in his first work, with rare power and enthusiasm; and we shall close with this amplification of our exposition. "We are

hovering," he says, "in an immeasurable All, where space is lost in infinite distance. We are living in the span of Time, whose flickering light now vanishes in the darkness of the past, and now in the darkness of the future. We think in that wonderful phenomenon of consciousness; an enigma to those about us, an enigma to our own selves. . . . We see about us, it is true, the sum of action only in its resultant cause of incomprehensible laws, but we behold them working together in harmonious accord. . . . And what is it that the soul of man so craves? It is to know the All, of which he is but an integral portion. Can he ever hope to comprehend it otherwise than by active co-operation in the continuity of the All? Could a surer, a more exalted consolation be offered him, than to know himself as an atom of infinity and eternity, and like this atom infinite and eternal too? . . . Our eye looks out into infinity, why deny it? Infinity surrounds thee; therefore do thou endeavor to be infinite. Thou shalt feel thy thoughts, thine ideas pouring forth into the eternity of the All; thou shalt everywhere feel them taking root in the laws of the harmonious cosmos; thou shalt grow as a part of it, unceasingly, eternally, without end, and shalt be filled with conscious harmony."

THE HISTORICAL DATA OF THE COMMONWEALTH OF ICELAND.

BY ALBERT H. GUNLOGSEN.

II.

ONLY the first decades of the Icelandic settlement belonged to the so-called Viking-age; during the following period the citizens of the Commonwealth emulated the public spirit and unflagging activity of the free commonwealths of classical antiquity. We read of their incessant intercourse with Scandinavia, and with the rest of the mediæval Europe. Not as plundering "vikings," but as peaceful traders, in their ships, they frequently visited Byzantium, and distant ports of the Mediterranean Sea. This unavoidable contact with the monarchical and clerical Europe of the time, later did not fail to have demoralizing effects upon the leading men of the Commonwealth, and upon the stability of the heathen Teutonic institutions of Iceland.

In the year 1000 these institutions for the first time were shaken to their very centre by the violent introduction of Christianity; and it is almost a subject of wonder, that they should still have long survived this powerful attack from the outside. The violent deeds and lawlessness of the Viking-age, after all, must not be regarded as a normal condition of things in Scandinavia, but rather as a transient political and social revolution. As men of Germanic race, the Scandinavian nations also were naturally accessible to strong humanitarian feelings. In the tenth cen-

tury, as might have been expected, only the tenets of Christianity could have satisfied these innate humanitarian instincts.

In their own vocabulary the word "religion" was mostly rendered by the term *síðr*, usage, custom, denoting any concrete form of religious worship, and which with themselves was identified with the entire social fabric. An unconditional acceptance of a foreign *síðr*, implied thus a total surrender of their own cherished, national traditions. Besides, there were other concomitant circumstances, unfavorable to the apostles of Christianity in the North. The degraded moral condition of the Southern nations was known, and looked upon with contempt by the Northerners who visited Byzantium, Gaul, and Italy; moreover, the simple fact, that their own rising, absolute kings sought by preference their main support in the new worship, these and other similar motives caused the introduction of Christianity in Scandinavia everywhere to assume the form of a sullen, reluctant compromise.

This particularly happened in the case of the Icelandic Commonwealth. In order to compel the Commonwealth to accept Christianity, the Norwegian king, Olaf Trygvason, excluded the Icelanders from intercourse and trade with Norway, and retained as hostages a number of sons of Icelandic chiefs. On this occasion the king's violent, apostolic methods, doubtless, contrast very unfavorably with the coolness, courtesy, and common-sense of the heathen Godar and lawmen of the Commonwealth. In heathen Iceland, although the Asic worship figured as the official state-religion, within his own domestic precincts no man could be persecuted for his religious faith. Submitting to the inevitable, the Icelandic Althing, adopted the only available expedient. It proclaimed Christianity as the official religion, and thereupon the Althing itself set about organizing the church. The church, practically, as far as possible, was identified with the existing national institutions; and thus the first one hundred and fifty years of the Icelandic church—even in a purely Christian sense, the best years of the Icelandic church—happen to coincide with this exceptional arrangement, which at that time of history only could have been realized in a remote country like Iceland.

In order to effect this, the Temple-Godar themselves to a considerable extent embraced the ecclesiastic state; the temple was converted into a church, and as before the church remained a private property. The jurisdiction and title of Godi, of course, were not abolished; but as Godi he did not himself officiate as priest, but for this he secured the services of "a hired priest," who was a dependent of the builder of the church. The Althing, at the request of the Norwegian king, St. Olaf (Olaf Haraldsson), thereupon abolished

several heathen laws, that were unfavorable to the church; but, when the same king in the year 1018 wished the Icelanders to receive foreign bishops, and even to acknowledge his own royal authority, the Althing indignantly rejected the king's proposals, and proceeded to elect its own, native bishops. The first of these Icelandic bishops, Isleif by name, was consecrated in the year 1055 by Archbishop Adalbert of Bremen, and there was erected the Episcopal see of Skalholt. In 1106 another bishop was elected to the see of Holar in the Northern quarter of Iceland.

If we are allowed to extend this period as far as the year 1150, it might be regarded as the brief golden era of the Icelandic Commonwealth. During this period the Commonwealth for the first time enjoyed undisturbed internal tranquillity. This was mainly due to the unselfish efforts of a succession of really distinguished native bishops, who, as yet, worked in harmony with the free institutions of the country. Still, the material interests of the church were not entirely forgotten. The Icelandic bishops, between the years 1122 and 1133, compiled a *Kristinætt*, namely, an *Icelandic Canonical law*, which was readily accepted and sanctioned by the Althing. Incidentally it may be observed, that the Icelandic bishops and clergy continued to contract marriages, like other laymen. The Pope of Rome was far away, and so were the German and Swedish Archbishops of Bremen and of Lund; but not so, at a later period, the Norwegian Archbishops of Nidarós.

The free institutions of the Commonwealth, and the stirring daily lives of the Icelanders, naturally, afforded a great public opportunity to the spoken word. In Iceland the common language of Scandinavia achieved a grand historical evolution, through which it became a much wealthier, and more highly developed type of speech. When in the eleventh century the Icelandic clergymen introduced the Roman alphabet, it at once became the vehicle through which Christian doctrine and legends were taught. The national *Skálds* and *Sagamen*, still throughout the eleventh century, continued to instruct the people through faithful oral delivery. But, at the beginning of the twelfth century the use of the Roman letters was extended to the accumulated materials of the national oral literature, and already before the year 1200, the vast bulk of oral Sagas had passed into a written form. *Ari* and *Sæmund*, at the beginning of the twelfth century, opened up the classical period of Icelandic literature and historiography, which extended into the first decades of the thirteenth century. This perfectly unique literature itself was mainly built up from native Northern elements, and it was in advance of the prose-literatures of mediæval Italy, France, and England.

The gradual decay of the Icelandic State in the

latter half of the twelfth century must be reduced to both *internal* and *external* causes.

The internal causes are attributed to the peculiar organization of the Icelandic Godord since the introduction of Christianity; and further, to the exceptional position of the Church to the constitution of the Commonwealth. The open conflict between the Church and the Commonwealth broke out about the middle of the twelfth century. The Icelandic Canonical law from the year 1122 was the main obstacle. In the days of the great Pope Innocent III, this national Canon-law no longer was compatible with the universal Canon-law of the Church, which then was being vigorously enforced in every European land beyond the Alps. The collection *Diplomatarium Islandicum*, among many papal letters, contains one from Pope Innocent III, addressed to the bishops of Iceland. The letter is a characteristic specimen of the peremptory style, in which the high-spirited Pontiff, despite geographical distance, aspired to rule the Christian world—*a mare usque ad mare!* The letter begins: "*Quamvis insula vestra magno profecto orbis terrarum tractu ab urbis partibus sit remota, vos tamen,*" etc.—and thereupon in a burning homily he reprimands the bishops for tamely submitting to the usurpation and alleged unchristian deeds of the secular power, and for neglecting to maintain the inviolate dignity of the church; and in conclusion he insultingly taunts the bishops with having become like unto "*canes muti facti, latrare non valentes!*"—all of which acquires an additional interest, when we recall to mind that the pontifical reprimand, journeying all the way from Rome to Iceland, was administered by a Pope, who *himself* had ignominiously failed to curb his own Roman barons, and who at this very time *himself* dared not travel the few miles between Rome and Anagni without an escort of several hundred armed men!

As regards Iceland, henceforth the Archbishops of Nidaros systematically refused to sanction the Episcopal elections undertaken by the Althing, or even the elections of native Icelandic bishops, but appointed their own favorites, and by preference foreigners. This was an unfair and flagrant violation of the rights of the people, and of the Icelandic Althing, and which manifestly aimed at the stability of the Commonwealth. The leading men of the Commonwealth soon found that any peaceful compromise was out of the question, and thus toward the close of the twelfth century the churches in Iceland ceased to be a private property.

The following decades of civil strife were a direct result of the previous struggle between the Church and the Commonwealth, whose leading men had lost all hope of preserving the old political institutions, and whose patriotic pride and love of country had

been weakened by the foreign intrigues, to which they constantly were being subjected.

Originally there had existed a tacit presupposition of the social equality of all the Godar of Iceland, but now, apparently to indemnify themselves for the losses sustained through the surrender of vast property to the Church, certain Godar sought to grow more powerful through family-alliances, annexations of new Godords and number of *thingmen*. This disastrous period, in the annals of Iceland, is known as the so-called "Sturlung" age. It lasted through the first five decades of the thirteenth century, and it is identified with the rise and ambitious aspirations of the family of the Sturlungs.

The Icelandic Godi Sturla Thordson having laid the foundations of the power of his family, his three sons Thord, Snorri, and Sighvat, each in his turn sought to increase their Godords through purchases, marriages, and open deeds of violence. By degrees the west of Iceland had fallen into their hands. Incidentally we remark, that the Snorri here alluded to, was the Skald and historian Snorri Sturluson, the renowned author of "*Heimskringla*," and of other works. These protracted contentions afforded a favorable opportunity for the kings of Norway, who now began to directly interfere in the affairs of the Icelandic Commonwealth. During the long strife their policy seems to have been by alternate turns to support the Sturlungs, or their enemies such as Gizur Thorvaldsson, and Kolbein. By turns the crafty king Hakon uses them as his unwilling instruments for the submission of the Commonwealth; and to this effect the king insidiously suggested that they should try to induce the leading men of the Commonwealth to come to Norway. In the year 1247, Cardinal William of Sabina happened to be in Norway for the Coronation of King Hakon. On this occasion the Sturlung Thord Kakali, and his antagonist Gizur Thorvaldsson submitted their differences to the Cardinal's arbitration. The Cardinal decided in favor of the scion of the Sturlungs, but at the same time he strongly advised the Icelanders to make their submission to the Norwegian king. "It was an unheard of thing," the Cardinal said, "that when all nations in Christendom acknowledged kings, the Icelanders alone should make an exception."

Thord thereupon was sent to Iceland, to rule all the Godords claimed by his family, and to work in the king's interest. He failed to do the latter to the king's satisfaction, and soon he was called back to Norway. Gizur Thorvaldsson thereupon became the favorite instrument of King Hakon; he was created "jarl" by the king, and subsequently he played a very prominent part in the closing events of the Commonwealth, as they have been graphically described in the great "*Sturlunga Saga*," the text of which has recently been

published by the Clarendon Press in Oxford. The formal surrender of the Commonwealth of Iceland to the king of Norway took place in 1264. It was purely a conditional surrender. The Althing expressly stipulated the preservation and recognition of all its ancient privileges, and thereupon agreed to pay a yearly tribute to the king of Norway.

THE PSYCHOLOGICAL PROBLEM AND RELIGION.

By religion must be understood a conception of the universe that shall serve as a guide through life, as a regulative principle of conduct, as a basis of ethics. There are, accordingly, two elements in religion: the one of knowledge, the other of action. It is necessary that we have a knowledge of what the world is in which we live, and of what the laws are that constitute its cosmic order. This knowledge must find a practical application. It must encourage us to submit willingly to that which is necessary, however hard it may be, and to comply cheerfully with the demands that are founded in the nature of things.

Our view of the world for religious purposes need not be the accurate science of the naturalist; a conception of the universe in most general outlines is sufficient. Yet we must not forget that a clear and definite idea of the sociological law that regulates the relations between man and man and thus produces human society, is the most important and indispensable part of it. The laws of nature, in this sense, include the laws of spiritual, emotional, and intellectual soul-life.

Since natural laws remain the same, from eternity to eternity, it is thus apparent that religion has in it an element of immutability which makes it impossible that there can be more than one true religion. Yet since man's knowledge of natural laws has to undergo a constant evolution, his religious ideals, consequently, also grow and expand step by step with his scientific progress. And religious progress has always lagged and still lags a little behind scientific progress; for moral instructors are necessarily of a conservative turn of mind and slow to accept new truths which have not as yet passed through all the crucial tests of a critical examination.

Luther certainly was a progressive spirit, a bold and courageous man, who for the sake of truth feared neither the fagot of the inquisition nor the ban of the Pope. And yet how narrow-minded was Luther's opinion of his great countryman and contemporary, Copernicus. We read in Luther's *Table Talk*:

"Mention was made of a contemporary *astrologus* who wanted to prove that the earth moved and turned about, but not the Heavens, nor the Firmament, nor Sun, nor Moon; just as when a person is seated in a wagon or on a boat and is in motion, and fancies he is sitting still and at rest while the earth and trees do seem to pass along and be in motion. But the whole matter is just

this: whensoever a person means to be clever, he must perforce make up something of his own, which has to be the best that is, just as he makes it. This fool will upset the whole Science *Astronomie*. But the holy Scriptures tell us, Joshua bade the *Sun* stand still and not the Earth."

It is perhaps natural that every new discovery in science should apparently threaten to destroy the very basis of religion. But it turns out quite different as soon as men's minds get accustomed to the new conception of things. What has been destroyed by science, it then appears, was after all a childish error only. The world becomes greater and grander through an expansion of our conception of the world, and religion reaps the fruit of the scientist's work; religion is purified, spiritualized, and meliorated.

At the present time a new problem is again presented to religion—a problem which ought not and cannot be blinked by the clergy. This problem shakes our religious conceptions to their foundation, for it concerns the object and purpose of all religious work—the human soul. Religion being a guide through life and a regulative principle of conduct, what is it but a means devised for the salvation of souls?

Modern psychology throws a new light upon the nature of the soul. The soul was in former times and is still by many people conceived to be a mysterious being that is in possession of a certain stock of ideas. This mysterious being, the centre of man's spiritual existence, is called the Ego or the Me; it is the subject in the "I think," the agent that does the thinking; and the assumption of this ego has constituted the corner-stone of the most prominent philosophies since Descartes. Descartes pronounced the famous dictum *Cogito ergo sum*—"I think, therefore I am"; and this sentence has for two centuries been considered as the axiom of philosophy. Yet Kant objected to its so-called self-evidence. He denounced it as a fallacy. The existence of the I or Ego, which is to be proved in the conclusion *ergo ego sum*, says Kant, has been assumed in the premise *ego cogito*.

Kant who owes so much to David Hume most likely followed a hint of the great Scottish thinker who said:

"As for me, whenever I contemplate what is inmost in what I call my own self, I always come in contact with such or such special perception as of cold, heat, light or shadow, love or hate, pleasure or pain. I never come unawares upon my mind existing in a state void of perceptions; I never observe aught save perception. . . . If any one, after serious reflection and without prejudices, thinks he has any other idea of himself, I confess that I can reason no longer with him. The best I can say for him is that perhaps he is right no less than I, and that on this point our natures are essentially different. It is possible that he may perceive something simple and permanent which he calls himself, but as for me I am quite sure I possess no such principle."

Hume's view is a negation of the ego as a constant and immutable centre of the soul. The soul is recog-

nized as a combination of many ideas, and the ultimate elements of soul-life are the simple feelings of nervous irritations with the reflex-actions resulting therefrom. The centre of our soul-life, the present state of consciousness or the subject of the act of thinking, is not at all a mysterious agent distinct from the different ideas that are thought, but it is the very idea itself that is thought. The ego is not a constant and immutable centre, but it shifts about and brings into active play, now this and now that concept or wish; so that now this and now another feeling, or thought, or desire is awakened and stirred into prominence.

We distinguish between the ego, or the present state of consciousness, in its continuity with former as well as future states of consciousness, and the concept of our own personality. The idea of our own personality is a complex conception of our bodily form, of our past experiences, and of all our future intentions. It is comprised under the little pronoun "I". The idea of one's own personality is among all the ideas of a man perhaps the most important one, because of its constant recurrence. Yet we must bear in mind that as an idea it is not different from any other idea, representing other personalities or objects in the surrounding universe. If this concept of one's own personality is stirred in a man in combination with the idea of a certain work which is carried out by his hands, the thought rises in his brain, "I am doing this," or "I am thinking this," "I am planning this." In such a case, accordingly, the ego of a man happens to coincide at the moment with the idea of his personality. At the next moment, however, he may have forgotten all about himself, i. e., about his personality; and his ego, i. e., the present state of his consciousness, may be wholly absorbed in his work. For instance, he is felling a tree and thinks, Will it fall to the right or to the left? His ego, in that case, resides in the contemplation of the tree before him which is combined with the consideration as to where it is likely to break down. There is not an ego which thinks of the tree in its special predicament, but the idea of the tree *is* the ego at that moment.

Lichtenberg very wittily remarked: "We should say, 'It thinks,' just as well as we say 'It lightens,' or 'It rains.' In saying *cogito* the philosopher goes too far if he translates it 'I think.'"

This conception of the nature of man's ego has been generally accepted by psychologists. The recent investigations of experimental psychology carried on in France by Charcot, Th. Ribot, Alfred Binet, and others, and of physiological psychology in Germany, inaugurated by Fechner, and perfected by Wundt and his school, have only served to corroborate the fundamental truth of the fact that there is no independent

ego aside from the various thoughts of a man. Man's mind is a society of ideas, of which now the one and now the other constitutes his ego.

This discovery appears at first sight appalling. It destroys, it would seem, the human soul itself, and it is not at all astonishing that the clergy are shocked, that they abhor the outcome of psychological researches and speak of the new psychology as "a psychology without a soul."

It is not at all astonishing that people and especially the clergy are shocked; for the situation in our scientific conception of the soul is as thoroughly altered as our conception of the universe was in the times of Copernicus when the geocentric standpoint had to be abandoned. It took some time ere people could accustom themselves to the idea that they whirled through space with a rotatory motion of nineteen miles a second. When trying to think of it they became dizzy; Nature appeared to be deprived of her dignity, for if matters were as Copernicus said, all fixedness, all solidity and stability seemed lost forever in the material as well as in the moral world.

* * *

Modern psychology will influence the religious development of humanity in no less a degree than did modern astronomy. At first sight the new truth seems to destroy the soul itself; but it does not. It destroys a false view only of the ego.

To those who have not as yet fully grasped the new conception it appears difficult to renounce the ego-centric standpoint. However, a closer acquaintance with the modern solution of the problems of soul-life shows that instead of destroying religion they place it upon a firmer foundation than it ever before possessed.

The new psychology destroys the dualistic view of the soul. The soul has ceased to be something independent of and distinct from psychical activity. The new view is monistic: it regards the soul as identical with its activity; the human soul consists of man's feelings and thoughts, his fears and hopes, his wishes and ideals.

With the psychology of dualism an individualistic error is destroyed. The soul ceases to be identical with the ego, and the individual can no longer be considered as 'the little God upon earth' for whom all things are created, who from the moment of birth will remain unchanged into eternity. He is no longer the mysterious agent behind the many different phenomena of psychic growth and soul-life. But while destroying this metaphysical superstition, modern psychology does not at all deprive the human soul of its worth, its dignity, and its nobility. The human soul remains as great and noble, as precious and holy, as it ever was. This wonderful organism of innumerable ideas, of sen-

timents, longings, hopes and fears, wishes, desires, aspirations, and ideals that reside within man's brain, is the highest and grandest phenomenon of nature upon earth; and the moral aim of constantly improving and elevating the soul of man is rather helped than hindered by the new insight gained through psychological investigation.

Science never comes to destroy. On the contrary, it comes to purify. Thus the new psychology frees our conception of the human soul from an error which was the root of the belief in witchcraft and of many other evils. We must expect that a better understanding of the facts of psychology will be beneficial in all other fields of human activity and thought. The solution of the most important psychological problem will help us to solve other problems of a properly religious, social and socialistic, philosophical and scientific nature. It will advance humanity along the whole line of its brave army of progressive aspirers.

Truth seems to injure morality so long only as we have not as yet fully grasped the truth. Half truths may be dangerous, but the whole truth will ever serve to purify and to ameliorate. The psychical problem is a new crisis through which religion has to pass, and it is to be hoped that in the struggle between the old view and the modern view, between the popular and dualistic conception on the one side, and the scientific and monistic conception on the other side, religion will come out not only unbruised and unimpaired, but even greater and nobler and truer than it ever has been before. Religion, in so far as it will progress with the general progress of science, must lose all sectarianism, all anti-scientific narrowmindedness, and broaden into a cosmic religion. This cosmic religion will be a natural religion, because it is founded upon the laws of nature. It will be the Religion of Science, because its truth rests upon scientific evidence. It will be the only orthodox religion destined to become catholic among all thinking mankind—orthodox and catholic in the etymological and proper meaning of those words.

The time of this religion is not as yet come; but come it must. At present we can only give encouragement not to shrink from investigation, but to inquire boldly into the basic problem of human existence, of moral ideals, and of religious aspirations.

Never fear truth, be it at first sight ever so alarming; truth will always lead to higher planes, to grander views, to nobler deeds.

P. C.

ON READING THE RUBAIYAT OF OMAR KHAYYAM.

BY J. H. BROWN.

My Omar, treading in a later day
This devious maze where once your footsteps lay,
Though far from Persia's rich and fragrant Rose,
Far from her clinging Vine's luxuriant spray:

Treading the path forever new yet old;
The tale retelling now so oft retold;
Here, while the Night her dusky mantle spreads,
I sit and view the starry map outroll'd.

So long ago you sang the Rose and Vine,
The Queen of Flowers and the purple wine;
And toss'd your song into the Sufis' forth,
And challeng'd better wisdom than was thine.

And now a dreamer in a distant clime—
A bubble borne upon the after-time,
Seeing a Rose upon the current float,
Drifts idly on—to touch your orient rhyme.

To touch your rhyme! but Omar where art thou?
Dost hear thy life-song waited to me now?
This spirit thrilling mine from the white page
Seems like a Presence bending o'er my brow.

Feeling thy life intense I cannot think
That when the 'Angel of the darker drink,'
At last before thee standing, held the cup,
Thou didst forever into darkness sink.

Then doubting do I ask, What profits all
The going, coming, on this fire-blown ball?
This sand speck circling in the dim inane
Where myriad suns forever rise and fall?

Mankind, O Omar, still no star can see,
Nor torch to guide them through the Mystery,
Where, blindly groping, cling they to a hope
One day to find of Human Fate the key.

New Teachers rising to the people cry:
Divinely bither, sent by the Most High,
We come to show the inner truth of things,—
The truth which shown no scoffer can deny.

His will they know: His purposes make plain;
Thy Vine and Rose they gird at might and main;
O'er thorns and stones they press the earthly way
To shun a future of eternal pain.

Somewhere, they say, within the waste abyss,
There reigns a Paradise of perfect bliss;
A Land of Summer where the Rose and Vine
Bloom fairer than they ever did in this.

And they who lov'd not this life there shall tell,
Couch'd high on beds of rose and asphodel,
The praises of His name who led them up
And thrust their brothers down to deepest Hell.

Others advancing cry: There is no God!
Or, if there be, philosopher and clod,
Sinner and saint are all alike to him;
He sits withdrawn—ye need not fear his nod.

O brave as strong! my Omar, kind and wise!
Scornor of sophists and their subtle lies!
Lover of Truth—of Truth without disguise,
And soul's integrity—the highest prize!

With thee I hold He plac'd us here to live—
To love the life He found it good to give;
And though the SECRET we should never know
Why life at worst is sweet—and wherefore grieve?

Lo! in the East the light of morning grows;
The curling mists ascend, the crimson glows;
And, in the smile of greeting Earth and Heav'n,
The Universe appears an op'ning Rose!

THE BREAD OF LIFE.*

TO C. C. W. N.

BY A. H. CHANDLER.

Crave neither Science nor Philosophy,
Which yearning minds so oft pursue in vain;
These but a favored few can scarce attain
By long night-vigils, days of industry,
And earnest striving, in the end to be
Heart-famished; although later on they faint
Would quaff life's cup and all its dregs again,
Regardless of their Immortality.

"Athirst and hungry" seek that "living bread
And wine," world-free, a gift of priceless worth;
Full-measured is the plenteous golden bowl;
Partake, and O be not disquieted!
Such Sacrament hath Christ brought to our earth,
That satisfieth the desiring soul.

MONCTON, N. B.

NOTES.

A VERY interesting scene was presented at the City Hall of Chicago a few nights ago, when a delegation of ladies waited on the Mayor and City Council with a petition asking that three women be appointed on the School Board. The affair was rather unskillfully managed, and the effect of it was in some respects to injure rather than promote the object of the petitioners. In the first place the petition was not a general expression of the women of Chicago, nor even of that portion of them who advocate the appointment of women on the School Board. The delegation had no representative character in the popular meaning of the word. It represented a refined and intelligent element, not numerous, but respectable and exclusive. This private and select appearance was unfortunate enough, but the delegation also made the grave mistake of taking a man along to plead the women's cause. The effect of this was to weaken the claim for women. If among all the women of Chicago there were none competent to present their claim to the Mayor and City Council, the inference is easy that there are none competent for places on the School Board. The women were not wise in giving to their enemies the advantage of this argument. It is a slight excuse for this mistake that the man selected knows more about schools and their needs than any other man in Chicago, but this does not altogether atone for the blunder.

The petition presented by the ladies to the Mayor and Council, for the appointment of women on the School Board, shows a creditable proficiency in political methods which will go far to remove the impression that women are not fit for politics. The opponents of woman suffrage will be confounded and ashamed when they behold inexperienced women learned as men in the mysteries of secret slate-fixing, and the tactics of the caucus. The veteran politicians of the City Council must have admired the strategy of those women, who came to the Mayor with their "slate" already made up, just like men. They did not ask the Mayor for the appointment of women on the School Board, but for the appointment of certain women selected by them. They had been in secret caucus; they had sifted all the women in Chicago and had found half a dozen competent for school officers, so they demanded the appointment of three of these. Thus they combined business with pleasure, and showed their knowledge of the electioneering art, and the genius of government. Suppose, however, that the men on the School Board happen to be as uncivilized as members of the City Council, and puff tobacco smoke in women's faces just like Aldermen; will they want to be on the School Board then?

*The poem to which this sonnet refers appeared in No. 139 of *The Open Court*.—Ed.

Lord Castlereagh, the famous politician, was voluminous in oratory. He could say nothing in more words than any other man of his time. He could involve sentences into labyrinthine phrase with such intricate ingenuity that their meaning became involved in riddles impossible to solve. Macaulay, amazed at the achievement, says that on one occasion Castlereagh managed to conclude a sentence with the word "its." This was a great oratorical feat, and much literary wonder has been excited by it, for Macaulay with provoking malice concealed the sentence, and did not explain how the deed was done. The puzzle however has been solved by a member of the American Congress. Mr. Butterworth of Ohio has concluded a speech in this manner: "The Democratic party knew very well that the President was as sovereign in his sphere as Congress was in its." Like all other puzzles it is simple enough when you know how to do it. It is a little curious too that Macaulay, who was an intellectual phonograph, retaining all he ever heard or read, and able to give it back again when called upon, forgot that Shakespeare had anticipated Butterworth and Castlereagh. In King Henry the Eighth, Act the First, the duke of Norfolk, describing to the duke of Buckingham the splendor of the festivities at the Field of the Cloth of Gold, says:

Each following day
Became the next day's master, till the last,
Made former wordsers its.

* * *

What is the etiquette of type-writing? This is an ethical question of importance. How much of our correspondence *must* be written with a pen, and how much of it *may* be written with a type-writer? I have long been in correspondence with an old friend in England, and thinking to make my letters more legible and handsome I have lately used the type-writer. Instead of praise he sends me back reproaches. In a recent letter he says: "Your last two letters are type-writing productions. I cannot say I like this modern improvement. It has none of the beauty and interest of handwriting. I fear that calligraphy is destined to be added to the lost arts." This plaintive sentiment is founded on good morals and right feeling. I see now that type-writing in friendly correspondence is an offense against the laws of social confidence, and mutual esteem. Type-writing should be confined to business letters, or to correspondence between persons of no consequence to each other. It is lifeless, impersonal, and artificial. The soul of the writer is not in it. Handwriting is heart-writing, and a spiritual influence forever. The psychological power of handwriting can never be attained by type. A type-written letter brings none of the writer's presence with it as a pen-written letter does. Of what value is an old type-written letter, say from a friend separated from us by long distance or by death? It has the inspiration of any other piece of print, and nothing more. Not so with a letter written in the ancient way, for a spiritual current passing from the writer in magnetic streams through the pen to the paper vitalizes it forever. In such a letter some of the immortal essence of the writer is preserved, and so long as we possess it we feel his companionship is never altogether lost. The more I think of it the more I feel the justice of my friend's rebuke.

* * *

There are many excellent people who maintain that loyalty to the government is a virtue, but that loyalty to party is a vice; and on the surface it really looks that way. Loyalty to the government seems to exalt the dignity of the citizen, while obedience to party looks like a surrender of personal independence. Plausible enough; but in a system of Government by Party, why is not one loyalty as meritorious as the other? For instance, why should a man be honored for laying his body on the altar of his country at the call of government, and at the same time be condemned for offering his mind and soul in sacrifice at the call of party? If the

party in power is the government for the time being, and the party out of power hopes to be, why is not party loyalty a duty like devotion to the government?

The value of party loyalty in a government by party was beautifully shown at the Grand Pacific Hotel in Chicago a couple of months ago. The Republican State Central Committee held a meeting there to discuss the "good of the order," and to appoint a day for the State Convention. Old war-horses of the party attended the conclave to give spirit and fire to the proceedings, while political Nestors came from every district with gripsacks full of counsel. The question before the house was, "Shall we have an early or a late convention?" Some wanted it early on grounds of expediency, and others wanted it late on grounds of principle. The argument of these displayed a touching self-devotion beyond praise. They wanted a late convention because Congress having adjourned, they could ratify its action. This readiness to surrender judgment, soul, and conscience for the public good, deserves the gratitude of a people who admire patriotic self-sacrifice. It ought to put those patriots on the pension roll. It adds to their glory that they had not the slightest idea of what they offered to ratify, but they would not mar the party harmony by asking questions. To them it mattered nothing whether Congress lowered the "Chinese wall," or made it a story higher; to them it was all the same whether tin, turpentine, and tobacco were put on the free list, or in schedule "A," "B," or "C." Whichever way it might happen to be, they would "ratify." They cared not whether Congress made silver coinage free, or limited, they stood ready to "ratify." Of what consequence was it whether Congress refused pensions or gave every old soldier a house and lot, so that they could "ratify." Indeed should Congress pass a bill of attainder against every man of them, and order them all to be beheaded on the 4th of July, they would bow their heads meekly to the block, and thankfully "ratify." The country is perfectly safe, because while such an obedient spirit exists, government by party will be an easy and lucrative business,—for the governors.

M. M. TRUMBULL.

BOOK REVIEWS.

LA LINGUA UNIVERSALE. By Paolo Mantegazza. From the *Archivio per l'Antropologia e la Etnologia*: Vol. XIX. Fasc. 3, 1889.

The distinguished Italian ethnologist, with many scientists of his own time, asks the question: Is it possible to invent a universal language? Professor Mantegazza avoids giving a direct answer to his own query, but he quotes the authority of Leibnitz, and that of a few modern scientists. All theories in favor of a universal, international language, are mere utilitarian views of language. The narrow ideas of its practical, momentary usefulness, economy of time, international convenience, etc., almost entirely overrule the scientific and linguistic idea itself. They totally seem to disregard and to ignore the independent and imperial character of human languages. In this respect, the views of Professor Mantegazza do not essentially differ from those of the realistic promoters of the Volapük jargon.

Mantegazza regards the practical creation of a universal tongue as a comparatively easy task, but at the same time he maintains that this invention ought to be performed according to strictly "ideological" methods, and in this important particular he claims to differ from the purely empirical process of Johann Martin Schleyer, the inventor of the Volapük.

In Professor Mantegazza's ideological scheme of a universal language every consonant should express a fundamental idea, and from their association are to result all secondary ideas. The

vowels, on the contrary, serve to indicate the diverse modifications imparted to the fundamental ideas in time and space. The names of objects, through the frame-structure of the consonants, must be referred to some original, fundamental idea, and to the same also must be referred all moral ideas. In other words, the structure of the language aims at being as *natural* as possible. Hence:

1. Every consonant must express a fundamental idea.
2. Every part of speech should possess its own characteristic ending.

3. The different vowels together with the consonants ought to modify the verbs so as to render adverbs superfluous. Thus, the letter *L*, before the final ending, is supposed to express intellectual action; the letter *M*, action relating to sentiment; the letter *P* denoting sensual action.

L'ea, pleasure (the letter *v* expresses pleasure).

L'ela, intellectual pleasure.

L'ema, sentimental pleasure, love.

L'epa, physical enjoyment.

4. The vowels form the personal endings of the verbs: *vema*, veme, vemi, I love, thou lovest, etc.

5. The first consonants of the alphabet, in their successive series are made to express the tenses of the verb.

6. The consonant *R* expresses pain, thus: *Ren*, implies the general notion of suffering, *Rela*, intellectual suffering, *Rema*, suffering of the heart, *Repa*, physical pain.

7. The letters *r*, *s*, *t*, prefixed to the last characteristic vowel of the verb express the degree of action in the verb, thus: *repa*, suffer a little, *repsa*, suffer considerably, *repta*, suffer very much, etc., etc.

Such is substantially the ingenious, ideological structure of his universal language, which Mantegazza claims to have invented at the age of twenty-two years. At the present time, however, he modestly believes that he really performed an idle and useless task. The Volapük, surely, is doomed because it only added one more awkward idiom to the three thousand and sixty-six that we already possessed. It was mainly derived from the English, modified and softened for the organ of the southern nations. Mantegazza, accordingly, is quite willing to sacrifice his youthful, ideological scheme, in favor of what he regards as a far more solid and practicable realization of a universal language, to wit, the spontaneous and mimetic language of gesture: *la lingua dei gesti*. In his opinion this is the only practically possible "universal language," naturally and uniformly understood by all races and nations of the earth. It must be admitted that the idea of a gesture-language as such is only a crude and narrow view of the true nature of all human utterance. Without further expatiating upon the subject, it is only fair to remark that the modern science of language still refrains from all serious discussion of the problem of universal language. To the eminent philologist Wilhelm von Humboldt every different type of human speech was not merely an *external*, incidental phenomenon, but rather a peculiar expression of the cosmic views and ideas possessed by the different races of the earth, or as he expresses it: *Jede Sprache ist eine eigenthümliche Weltanschauung*. Each single type from its own peculiar point of view realizes the universal speech-idea (*die Sprach-idee*), and always in an exclusive, national form. Even the surprising diversity and variety of languages constitute an indispensable condition for the successful attainment of the speech-idea, and of the higher intellectual development of the human races. It therefore seems clear that the general methods of purely ethnological research have to be cautiously applied to the phenomenon of articulate human utterance, to the science and philosophy of language.

AN ACCOUNT OF RECENT PROGRESS IN CLASSICAL ARCHEOLOGY: 1875-1889. By Alfred Emerson, Ph.D. Cambridge: John Wilson & Son.

To the layman the discoveries of archaeological science in recent years are to a great extent unknown. Our illustrated magazines have furnished now and then essays on some newly exhumed fragments of antiquity, but the historical importance of archaeological work, and the widespread interest at present taken in it by all civilized nations are, by the average reader, little appreciated or understood. The labors of the classical archaeologists of Germany, France, England, Italy, and Greece (latterly even of America), supported mostly by governmental coöperation, have led in some instances to the entire reconstruction of many well-fixed theories and notions hitherto entertained by us of ancient art, architecture, law, and customs. The excavations at Olympia, Pergamon, at Tanagra, at Myrina, where such invaluable art-treasures and inscriptions were discovered; the excavation of the theatre of Polykleitos at Epidauros, which has revolutionized our conception of the structure of the Attic stage; and the discovery of the Code of Gortyna, that so greatly influenced Grecian legislation, are all that need be mentioned in illustration of the importance of these results. Nearly every nation of Europe has contributed to the movement—directly by subsidization, the erection of museums, and the institution of societies, and indirectly through its universities, its scholars, and private enterprise. America has, it is true, done but little, yet what we have done is worthy of substantial encouragement; and the support of the American Archaeological Institute and the American Classical School at Athens should become with us a matter of patriotic duty. We need, Dr. Emerson says, chairs of classical archaeology at our universities—we have not a single one now; the treasures that we possess should be put in museums—even our large cities do not possess collections for the illustration of ancient art to compare with those at such small towns as Marburg and Giessen, in Germany; our museums should be supplied with reproductive apparatus; and advantage should be taken of the many precious bargains still to be had in European markets.

Dr. Emerson's sketch, which covers the field of investigation from 1875 to 1889, and constitutes the Tenth Annual Report of the Council of the Archaeological Institute of America, is a very creditable performance. He has compiled his data in a readable and concise form. The author is Professor of Greek at the Lake Forest University and has more than once visited the ground of the operations he reports.

BOOK NOTICES.

Dr. Carus has completed his lectures on The Ethical Problem which he held on the invitation of the Board of Trustees of the Society for Ethical Culture, Chicago. The Open Court Publishing Co., will soon publish the lectures in pamphlet form.

We are in receipt of the latest publication of Helen H. Gardner, the well known liberal author. The book (published in New York by the Belford Publishing Co.) bears the title "A Thoughtless Yes," and contains several short stories part of which have appeared in *Belford's Magazine*.

In the Programme of Courses of Instruction, Graduate and Undergraduate, in the Department of Philosophy at Columbia College, a future course in Experimental Psychology is announced. The catalogue of books to be read in the various departments is very rich.

We have received from Dr. Frank L. James, of St. Louis, two little brochures reprinted from the Proceedings of the American Society of Microscopists, entitled respectively "Shrinkage of Cement-Cells the Cause of Leakage and Creeping in Glycerin

Mounts" and "The Deposition of Silver on Glass and other Metallic Surfaces."

We acknowledge the receipt of a number of copies of *The Newcastle Weekly Chronicle* containing a series of autobiographical articles, by Mr. George Jacob Holyoake, entitled "Sixty Years of an Agitator's Life," and four fervently and sympathetically written articles by his friend and co-worker Mr. Geo. Julian Harney, entitled respectively, "The Grand Rehearsal," "Eight Hours—Russia," "Russian Exile," and "Progress! Whither?" If space allowed it, we would be glad to publish in part the sturdy remarks of Mr. Harney, and many extracts from the eventful life of the great apostle of liberty, George Jacob Holyoake. But we recommend their perusal to our readers. One passage from Mr. Holyoake's reminiscences has struck us as being sustained by a noble and high-minded ethical sentiment. It is where he speaks of his arrest and maltreatment at Cheltenham:

"It was a doctrine of mine that anger was but the exhibition of ignorance taken by surprise; and that hatred was no economy of time, as it enabled persons whom you knew and detested to occupy your thoughts with schemes of retaliation. There is a period in law when debts are no longer recoverable, and I have suggested to co-operative societies that associative animosities should be closed with the accounts, and not carried forward to the next quarter. Certainly the best new year's resolve is to cancel the barres which the past twelve months may have engendered—to treat them as though they had never been, and begin each new year free from the unprofitable burden of resentment or malevolence to any man. Though this rule has brought me a sense of peace like an annual endowment, I find after forty-eight years some anti-clerical indignation creep into my mind when the intentional indignities of my march to Gloucester Gaol recur to me."

NOTES.

In the psychological department of the new Clark University, the course for the coming year embraces lectures and laboratory work by the following professors: President Stanley Hall, Dr. H. H. Donaldson, Dr. E. C. Stanford, Dr. F. Boas, and others. The university possesses excellent neurological and psychological laboratories, from which good work may be expected.

An International Literary Bureau has been established in Milwaukee, Wis. (450 East Water Street, Market Square). Its objects are—to afford a convenient way of securing international copyrights by means of authorized translations, to afford a medium of exchange for literary productions, to supply original literary matter as well as translations for literary and commercial purposes, to furnish a medium for bibliographic information, etc., etc. Prospectuses may be obtained on application, and correspondence is solicited. The Bureau is managed by Mr. Maximilian Grossmann. We sincerely hope that it will fulfil its mission and promote the objects for which it has been founded.

The Anarchist Mr. Tucker, editor of *Liberty*, Boston, quotes from *The Open Court* a passage that occurs in the discussion on Nationalism. Anarchism was contrasted with Nationalism as the opposite mistake. We said: "If the individual does not voluntarily obey the laws of the community, society has the right to enforce them. There is no such thing as sovereignty of the individual." Mr. Tucker says:

"True, there is no such thing; and we Anarchists mean that there shall be such a thing. The criticism of *The Open Court* writer is doubtless valid against those Anarchists who premise the sovereignty of the individual as a natural right to which society has no right to do violence. But I cannot understand its force at all when offered, as it is, in comment on the declaration of a leading Anarchist of Chicago that the goal of progress is individual sovereignty."

"Anarchism of the 'natural right' type is out of date. The Anarchism of to-day affirms the right of society to coerce the individual and of the individual to coerce society so far as either has the requisite power. It is ready to admit all that *The Open Court* writer claims in behalf of society."

We wage no war against anarchists who declare that the laws shall be obeyed. Yet there is one point in which we take exception to Mr. Tucker's anarchism. He says: "Liberty is the mother of order" and we say: "Order is the mother of Liberty."

The Open Court.

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THE SCIENTIFIC METHOD IN FICTION.

BY W. R. THAYER.

EACH age has the defects of its qualities. That the present age stands pre-eminent in scientific attainments, no one will deny; but not every one perceives that the very qualities which conduce to precious results in Science appear as defects when they are applied to other departments of human energy. Thus there is now a school of writers and artists who maintain that the "scientific method" should be adopted in Fiction and Art. Is this assumption valid? Should a novel or a painting be subjected to the same processes as a medical treatise, or a surgical plate? Let us hear what the advocates of this theory, which goes under the name of Realism or Naturalism, have to say in their defence; and let us listen to their spokesman, Zola, because he has formulated this theory, and because he is a strong thinker, whereas Mr. Howells and the other Realists in England and America merely echo and imitate him.

Zola was originally a Romanticist, but on reading the works of the able physiologist, Claude Bernard, who found medicine an art and left it a science, he was persuaded that a similar improvement was possible in the art of fiction. "Thanks to the experimental method,"* he says, "Bernard first established the difference which exists between the sciences of observation and the sciences of experiment. He comes to the conclusion that experiment is at bottom only intentional observation. All experimental reasoning is based on doubt, for the experimenter should have no preconceived idea in the presence of nature, and should always retain his liberty of mind. He simply accepts the phenomena which are produced, when they are proved." This is the attitude of the true scientist towards inanimate nature, which he regards as an organism in which chemical and dynamical processes are in constant operation: but, since inanimate objects can be thus observed, thus experimented upon, what shall prevent the scientist from treating all animate nature, including man, in the same fashion?

"The difference depends solely on the fact that a material object is surrounded by an external and common environment, whilst the elements of superior organisms move in an internal and perfected environment, which is nevertheless endowed with con-

stant physico-chemical properties, like the external environment. Whence it follows that there is an absolute determinism in the conditions of existence of natural phenomena, as well for living bodies as for inanimate objects. Determinism is the cause which determines the apparition of phenomena. This immediate cause is nothing more than the physical and material condition of the existence or of the manifestation of phenomena. The aim of the experimental method, the goal of all scientific research, is therefore identical for living bodies and for inanimate objects: it consists in finding the relations which unite any phenomenon whatever to its immediate cause, or,—to express this in another way—to determine the conditions necessary to the manifestation of this phenomenon. Experimental science ought not to trouble herself about the *why* of things: she explains the *how*, no more."

This is the gist of Bernard's theory of the purpose and scope of science, and he proceeds to demonstrate that it should be applied to the study and practice of medicine. The physician is not merely a scientific observer, but he is also an experimenter: a distinction well put, as we shall perceive when we reflect that astronomy, for instance, can never be more than a science of observation, because the astronomer cannot act upon the stars, but can only observe their motions and conditions; whereas chemistry or physiology is a science of experiment, because the chemist or physiologist can here act upon nature and modify it. Bernard further defines the duties of these two classes of scientific men.

"The observer," he says, "verifies purely and simply the phenomena which he has under his eyes. He should be the photographer of phenomena; his observations should exactly represent nature. He listens to her and he writes her dictation. But as soon as this fact has been verified and the phenomenon well observed, the idea comes, reasoning intervenes, and the experimenter is he who, in virtue of an interpretation more or less probable, but anticipated, of the phenomena observed, institutes the experiment in such a way that, in the logical order of his previsions, it may furnish a result to serve to correct the hypothesis or the preconceived idea. From the moment when the result of the experiment is manifest, the experimenter confronts a veritable observation which he has superinduced, and which must be verified, like every observation, without preconceived idea. The experimenter should then disappear, or, rather, transform himself instantly into the observer."

Such is the double rôle of the man of science: such, Zola affirms, should be the method of the novelist whose "problem is to know what a certain passion, operating in a given milieu and in certain conditions, will produce from the point of view of the individual and of society. An experimental novel is simply that

* I quote throughout from Zola's *Le Roman Experimental*.

report of the experiment, which the novelist repeats under the eyes of the public. In a word, the whole process consists in taking the facts from nature, then of studying the mechanism of facts, in working upon them by the modifications of circumstances and of *milieux*, without ever departing from the laws of nature." Of course, Zola acknowledges, we are far from having attained in our observation of human nature, to the certitudes of chemistry, or even of the recently-developed science of physiology: but then, the scientific novel is only in its infancy. "We must modify nature, without going outside of nature, when we employ in our novels the experimental method." A significant admission, to which may be joined the following sentence: "The novelist must see, comprehend, invent. An observed fact should inspire the idea of the experiment to be made, of the novel to be written, to arrive at the complete understanding of a truth. He starts from doubt in order to arrive at absolute knowledge: and he does not cease to doubt until the mechanism of a passion, taken apart and put together again by him, works according to the laws fixed by nature."

The determinism of inanimate bodies has long ago established; that of living bodies is becoming day by day recognized, and Zola does not hesitate to announce the approach of the time "when the laws of thought and of passions will be formulated in their turn. A single determinism must rule the stone by the wayside and the brain of man. . . . In a word, we novelists should operate on the character, on the passions, on facts human and social, as the chemist and physicist operate on inanimate bodies, and the physiologist operates on living bodies. Determinism dominates all." But not until we shall have mastered the physico-chemical conditions of the inner nature of man, shall we find what determines the external phenomena of his life. "The experimental novel is a consequence of the scientific evolution of the century; it continues and completes physiology, which in turn rests on chemistry and physics; it substitutes for the study of man abstract, of man metaphysical, the study of man natural, submitted to physico-chemical laws and determined by the influences of his surroundings: it is, in a word, the literature of our scientific age, as classic and romantic literature corresponded to a scholastic and to a theological age."

Coming now to the question of the application and moral purpose of this method, Zola declares that the great rôle of the realistic novelist is "to penetrate the *how* of things, in order to become superior to things, and to reduce them to the state of obedient wheels. We are experimental novelists." But it is unjust, he says, to charge realists with being materialists: the determinism which they seek to trace in the acts and thoughts of human beings must not be confounded

with fatalism. "Fatalism supposes the inevitable manifestation of a phenomenon independent of its conditions, whereas determinism is the necessary condition of a phenomenon of which the manifestation is not forced." Apply the experimental method, and "there is no longer either materialism, or spiritualism, either dead matter, or living matter; there are only phenomena whose conditions are to be determined, that is to say, circumstances which play the rôle of immediate cause in relation to these phenomena." We are to draw no moral from our works, which should carry their own moral with them. The public has no right to incense itself at any experiment the novelist may choose to make in its presence. The chemist does not hate prussic acid or azote; he suppresses the chemicals when they are harmful to him. Society should behave with such neutral equanimity, when the Realist submits to it his reports of degradation and crime.

By simply reasoning from analogy, we may predict that the experimental novel will inevitably be the backbone of all future literature—nay, that the experimental method will eventually dominate poetry, painting and sculpture—if, indeed, these arts do not have the good sense to betake themselves as fast as they can to oblivion.

"The human mind," says Bernard, "at the various periods of its evolution, has passed successively through sentiment, reason, and experiment. At first, when sentiment alone imposed itself on reason, it created the truth of faith, that is theology. Reason or philosophy becoming next mistress, it begot scholasticism. Finally experiment,—that is the study of natural phenomena,—taught man that the truths of the exterior world are formulated, at the outset, neither in the sentiment nor in the reason. These are only our indispensable guides; but, to reach these truths, it is necessary to descend into the objective reality of things where they lie hidden with their phenomenal forms. . . . In the search for truth by means of this (experimental) method, the sentiment has always the initiative, and begets the *a priori* idea or intuition; reason, or reasoning, then develops the idea and deduces its logical consequences."

To all of which Zola says amen. "We can admit nothing occult; there are but phenomena and the conditions of phenomena," declares M. Bernard; and again Zola replies amen.

Bernard seems to be a little more lenient than his disciple towards romancers and poets, and even compares philosophers to "musicians who play the *Marseillaise* of Theories, whilst men of science hurl themselves in an assault upon the unknown."

Servants need recreation from their exact investigations, says Zola, and so they tolerate the most extravagant theories, and wish to restrict literature to the ideal. "But it is only a flute *aria* which they permit one to play to them." "Literary and artistic productions never grow old," says Bernhard, "in the sense that they are the expressions of sentiments as

immutable as human nature." "True," replies Zola "but a great *savant* will also be read from this same point of view, because the spectacle of a great *savant* who has been able to write is quite as interesting as that of a great poet." But Bernard seems (to me, at least) to have stated the insurmountable objection to Zola's pretensions, when he says: "*In the arts and in letters, personality dominates all.* The question there is of a spontaneous creation of the mind, and this has no more in common with the verification of natural phenomena, in which our mind must create nothing." Zola glides over this fatal truth, by merely expressing surprise; "I am at a loss to understand to what branch of letters this most illustrious *savant* refers," says he; "without doubt, he is thinking of lyric poetry, because he would not have written this sentence had the experimental novel—the works of Balzac and of Stendhal—been in his mind." Metaphysical man being dead, this is the age of physiological man. "Doubtless," says Zola, in concluding his gospel, "the wrath of Achilles, the love of Dido, will remain pictures eternally beautiful; but behold, the need overtakes us of analyzing wrath and love, and of seeing precisely how these passions operate in the human being. The point of view is new, it becomes experimental instead of being philosophical. In short, all is summed up in this grand fact: the experimental method, as well in literature as in the sciences, is on the road to determine these phenomena natural, individual, and social, of which till now metaphysics had given only irrational and supernatural explanations."

Let us complete this epitome of Zola's doctrines by quoting the description he gives of the actual method of an experimental novelist who wishes, for example, to write a novel on the theatrical world:—

"He starts from this general idea, without having as yet either a fact or a person. His first care will be to collect in notes all that he knows about this world which he wishes to paint. He has been acquainted with some actor, he has attended some performance. Here are already documents—the best—which have ripened in him. Then, he will set out on the war-path, he will make the men best informed on the subject talk with him, he will gather the sayings, the stories, the portraits. Nor is this all; he will next look up written documents, reading all that may be useful to him. Finally, he will visit the places; he will live a few days in a theatre in order to learn its smallest nooks; he will pass his evenings in an actress's box; he will impregnate himself as much as possible with the surrounding atmosphere. And, the documents being complete, his novel will take shape of itself. The novelist will have only to distribute the facts logically. From all he has heard the end of the drama—the story which he needs to set up the carcass of his chapters—will disengage itself. The interest is no longer in the strangeness of the story; on the contrary, the more that it is *banale* and general, the more will it become typical. To make real persons move among real surroundings, to give to the reader a shred of human life,—there is all the realistic novel."

Here, then, is the authentic statement of this new

method, which we are assured, is the only true one. This is the Magna Charta on which all future literature will base its claims to liberty. I confess, that, for a person who despises metaphysics, Zola has indulged pretty freely in metaphysical terms, and has not always used them strictly; but this should not prejudice us in our estimate of the theory itself. Have not theologians for centuries succeeded in wrapping up the simple and beautiful teachings of Christ in mummy-cloths of dogma?

The chief excellence in this theory I conceive to be its honesty, and its recognition of the possible importance of any human being as a subject of investigation. Now, these merits can hardly be too highly admired. Honesty, the purpose on the part of the narrator to tell only what he can verify, has not always guided the makers of books. Most men are doctrinaires,—Zola himself is a conspicuous doctrinaire,—persons that is, who, having absorbed some particular theory of life, or art, fashion all their work, all their speech, to match that view. They are candid as far as they go. Take, for a single example, Sunday School literature; the good little boy attends church on Sunday, while the bad little boy goes skating and falls into an air-hole; one grows up to be a deacon, the other—if he escapes drowning—is sure to spend the larger part of his manhood in prison, and his old age in the poor-house. This literature is not honest, because it substitutes for the intricate but inevitable working of the moral law, an arbitrary scheme of rewards; it is based not upon the methods of Providence, but upon the methods which the pious writer would adopt were he Providence. Ascending higher in the scale of literature, we encounter troops of novels inspired with a purpose, whether didactic, or political, or economical. To writers who contemplate the world in this fashion, "it has lost its innocence," and we need but confront them with Zola's declaration, that the work should convey its own moral. Nature does not write a tag on each of us, but she leaves us to decide for ourselves whether a man, a deed, a policy, be good or bad. The lesson of *Lear*, the significance of *Macbeth*, seem restricted and paltry when interpreted by commentators. So far then as Realists live up to their rule of honesty we shall not quarrel with them. Let us tolerate nothing but the truth, whether in science or in art. But—what is Truth?

The second admirable tenet of the Realist—that any human being may be worthy of reverent study—harmonizes at once with the catholic attitude which science has taught us to hold toward the material world, and with the democratic spirit which is slowly revolutionizing our social views. During this century science has turned from the splendid but vain search for the absolute and infinite, to the patient examina-

tion of the relative and finite. It has given up trying to solve the *why* of things, and has devoted itself with unexampled precision and enthusiasm to describe the *how* of things. 'Tis an age of taking account of stock and of making inventories: we will know and name every molecule; we will analyze every force, and represent it by a formula. It is as if the world were a vast library whose myriads of volumes and pamphlets had hitherto lain in confusion on the floors and in the corners; an army of enlightened and zealous scholars enter it; they sweep away the cobwebs and dust; they examine and catalogue each book, and put it on the proper shelf, according to order and system, so that any work in the collection can henceforth be readily consulted. In this undertaking there is plainly no great and no small. Not an atom can be neglected; things are not intrinsically precious, but they may be of inestimable importance in their relations to other things. A fossil fern-leaf may be the clue to a whole series of botanical problems; the twitching of the muscles of a vivisected frog, may reveal to the surgeon the operations of disease in human bodies, and suggest to him a remedy therefor. Every object in nature, thus refers, to every other object. The fact that a ray of light is split up into the primary colors in passing through a lens, seemed merely a curious bit of information, until it enabled us by means of the spectroscope, to know the constitution of the stars. No wonder that no particle, no creature is insignificant to the man of science! He stands midway between the world of the infinitely small and the world of the infinitely great. Looking down through his microscope he passes in review all organized life down to the primordial cell or germ, he scrutinizes all inorganic matter down to the atom; looking up through his telescope, he beholds the planets and the sun, Sirius and Canopus and Vega, and the incalculably distant nebulae, and the motions of the constellations and the ebb and flow of the sidereal tides. Everywhere he beholds unity; everything teaching him catholicity and reverence. But, admitting this, shall we not ask whether the methods, which give the best results in Science, are the best methods for Fiction and Art? Does our insight into human nature depend upon the power of our telescopes or the sharpness of our lancets?

RELIGION, NATURAL.*

BY PROFESSOR F. MAX MÜLLER.

WE have thus far explored one road only that led our ancestors from nature to nature's God. It is, no doubt, an important road, but we must remember that it is but one out of many. Whether we examine the religions of civilized or uncivilized races, we shall al-

ways find that they started, not only from fire, but from many of the other great phenomena of nature, such as the storm-wind, the sun, the moon, the stars, the sky, the sea, the earth, the rivers, and the mountains, in their gropings after what lies beyond, after the invisible agent, the father, the author, after the God revealed to the senses in the countless miracles of nature.

If the storm-wind was from the first called the crusher or shouter, people soon asked, who is it, that shouts and crushes. If the sun was called the shining and warming, the question could not long be suppressed, who it was that shines and warms. The sky, as participating in the work of the sun and the moon and the stars, of the storm, the lightning, and the rain, was also asked who he was or who was behind and above the sky, who was the real agent of all the acts performed on the stage of heaven. The very earth, though so near and palpable and familiar, became nevertheless mysterious when it was asked what life there was in her, and when it was felt how much she did in her quiet and much-suffering way for all who dwelt in her fields and forests. If we like we may call this primitive wonderment at what seems to us at present so very natural, and the religious and mythological phraseology that sprang from that wonderment, by such names as *Animism*, *Personification*, and *Anthropomorphism*. Only we must remember that the historical student of religion cannot rest satisfied with mere names, but that his chief object is to account for facts, and thus to understand something, however little, of the inevitable growth and development of religious and mythological concepts.

If we have once clearly understood the inseparable connection between thought and language, our task becomes much easier. I know but too well how great a mental effort is required in order to apprehend that fact and all its far-reaching consequences. When human beings were once in possession of the name and concept of *anima* or soul, of *persona*, person, of manhood and godhead, we can well understand that they should have predicated *anima* or soul of the sun, personality of the moon, manhood of the storm, and godhead of the sky. But the real question is, how were the name-concepts of *anima*, *persona*, *homo*, and *deus* elaborated, and what organic connection was there between them and such concepts as the sun, the moon, and the sky.

To imagine that mythology and religion could have arisen by ancient poets calling sun, moon, and sky animated, or personal, or manlike, or divine, would be, to use a familiar phrase, to put the cart before the horse. There is such a phase in the later periods of the growth of the human mind. We ourselves are still living in it, our poetry draws most of its inspira-

* From a Report in the London *Christian World*, copies of which were kindly sent us by Prof. Max Müller.

tion from it. We hear our poets express their 'faith that every flower enjoys the air it breathes'; they speak of 'the morn, in russet mantle clad, walking o'er the dew of yon high eastern hill.' We have read of 'a brotherhood of venerable trees,' and of the 'sable goddess, Night,' and we know perfectly well what is meant by all this, because we are in possession of a large dictionary of language and thought. But if we want really to understand this phraseology, we have first to find our way into more distant pre-historic periods, into the dark subterranean caves where those weapons were forged with which man from the earliest days fought his battles and made his conquests.

Besides the lesson which we have thus learnt from the comparative study of American, Babylonian, Indian, and Teutonic mythologies, as to the possible development of the highest concept of divinity out of the simplest phenomena of nature, there is another lesson which was impressed upon us when studying the history of Agni, and which is even more strongly inculcated by the history of the Storm-gods. The ancient gods were not restricted to one character. Agni, for instance, was, no doubt, the fire on the hearth, but any poet might speak of him as born in the sky, as lightning, as rising as the sun in the morning and setting in the evening, as generated by the firesticks, nay, as identical with the warmth and life of the animal world.

In like manner the father of the Maruts is not only a meteoric deity, sending his arrows from the clouds, he is also a celestial deity—he is, in fact, one side of the power of light and life which is recognized in the sky, and called *Dyans*, and recognized in the sun, and called *Ivar*. How the sky and the sun gave the most powerful impulse to the formation of mythological and religious ideas I have on so many occasions endeavored to explain that I must content myself here with referring you to my Lectures on the Science of Language, and to my Hibbert Lectures on the Origin of Religion, with special reference to India. The result is everywhere the same. The sun, the sky, the fire, are named, and could only be named by names expressive of agency. This was, as we saw, a necessity of what you may call either language or thought.

Having been named, these solar, celestial, or igneous agents became the object of early thought. They were described in their manifold manifestations, particularly such as influenced the life and the acts of man. After a time these various manifestations were recognized as external only, and the agent being more and more divested of these external veils, was slowly recognized as something else, something by itself, something beyond the finite knowledge of man, and in the end as something subnatural, supernatural, and infinite.

This led everywhere to the two phases of Henotheism and Polytheism, and by a still more powerful abstraction, to Monotheism, that is, the recognition of one agent, one father, one god, hidden behind the magic veil of nature, but revealed by an irresistible necessity, which postulates something infinite and divine without, because it has discovered something infinite and divine within. Thus we may discover in all the errors of mythology, and in what we call the false or pagan religions of the world, an element of truth that grows stronger and stronger as it throws off its old integuments, and becomes at last what it was intended to be from the first—a recognition of the Infinite, throwing off its veils before our eyes and revealing to us itself more and more in its own purity and holiness.

Thus the two concepts, that of evolution and that of revelation, which seem at first so different, become one in the end. If there is a purpose running through the ages, if nature is not blind, if there are agents, recognized at last as the agents of our own Will, behind the whole phenomenal world, then the evolution of man's belief in the Supreme Will is the truest revelation of the Supreme Will, and must remain the adamantine foundation, on which all religion rests, whether we call it natural or supernatural.

What can a study of Natural Religion teach us? Why, it teaches us that religion is natural, is real, is inevitable, is universal. Is that nothing? Is it nothing to know that there is a solid rock on which all religion, call it natural or supernatural, is founded? Is it nothing to learn from the annals of history that 'God has not left Himself without witness, in that He did good, and gave us rain from heaven, and fruitful seasons, filling our hearts, and the hearts of the whole human race, with food and gladness.'

If you examine the attacks that have been made on religion, which have proved the more dangerous—those on Natural or those on Supernatural Religion? Christianity, to which alone, at least among ourselves, the name of a Supernatural Religion would be conceded, has been surrounded, during the nineteen centuries of its existence, with many ecclesiastical outworks. Some of these outworks ought probably never to have been erected. But when they were attacked and had to be surrendered, Christianity itself has remained unaffected, nay, it has been strengthened rather than weakened by their surrender. The Reformation swept away a good many of these ecclesiastical fences and entrenchments, and the spirit of the Reformation, dangerous as it was supposed to be at the time to the most vital interests of Christianity, has never been at rest again, and will never be at rest.

Under the name of Biblical criticism the same reforming spirit is at work in our days, and whatever

may be thought of it in other countries, in the country of Knox, in the ancient home of free thought and free speech, that reforming spirit will never be stifled, however dangerous it may seem at times even in the eyes of old and honest reformers. There can be no doubt that free inquiry has swept away, and will sweep away, many things which have been highly valued, and which were considered essential by many honest and pious minds, and yet who will say that true Christianity, Christianity which is known by its fruit, is less vigorous now than it has ever been before?

There have been dissensions in the Christian Church from the time of the Apostles to our own times. We have passed through them ourselves, we are passing through them even now. But in spite of all the hard, and harsh, and unchristian language, that has been used in these controversies, who would doubt now, after their lives and their deepest convictions have been laid open before the world, that Kingsley was as deeply religious a man as Newman, that Stanley served his Church as faithfully as Pusey, and that Dr. Martineau, the Unitarian, deserves the name of a Christian as much as Dr. Liddon?

A study of the ancient religions of the world taught them that many things in nature which are now considered natural, appeared to the minds of the earliest observers as by no means natural, but as astounding, as truly miraculous, as supernatural. Unfortunately, it is still with many of us as it was with the Jews of old. They were always hankering for something exclusive and exceptional, for something supernatural and miraculous. They would not believe unless they saw signs and wonders, designed for their special benefit, while they remained blind to the true signs and wonders that appealed to them on every side. And yet the founders of the three greatest religions of the world, however much they may differ on other points, are unanimous on *one* point—namely, in their condemnation of this hankering after the miraculous, and after the supernatural, falsely so-called.

A French philosopher and poet, Amiel, has truly said: "A miracle depends for its existence far more on the subject who sees, than on the object that is seen. A miracle is a perception of the soul, the vision of the Divine behind nature. There is no miracle for the indifferent. Religious souls only are capable of recognizing the finger of God in certain events." But while on one side a study of Natural Religion teaches us that much of what we are inclined to class as natural, to accept as a matter of course, nay, to pass by as unmeaning, is in reality full of meaning, is full of God, is, in fact, truly miraculous, it also opens our eyes to another fact—namely, that many things which we are inclined to class as supernatural are in reality

perfectly natural, perfectly intelligible, nay, inevitable, in the growth of every religion.

Thus it has been the chief object of my lectures to show that the concept of God arises by necessity in the human mind, and is not, as so many theologians will have it, the result of one special disclosure, granted only to Jews and Christians. It seems to me impossible to resist this conviction when a comparative study of the great religions of the world shows us that the highest attributes which we claim for the Deity are likewise ascribed to it by the Sacred Books of other religions. This is either a fact or no fact, and if it is a fact no conscientious scholar would in our days try to explain it away by saying that the poets of the Veda, for instance, had borrowed their concept of God and His essential attributes from the Jews. I have never been able to understand the object of these futile endeavors. Do we lose anything if we find that what we hold to be the most valuable truth is shared in and supported by millions of human beings? Ancient philosophers were most anxious to support their own belief in God by the unanimous testimony of mankind. They made the greatest efforts to prove that there was no race so degraded and barbarous as to be without a belief in something Divine. Some modern theologians, on the contrary, seem to grudge to all religions but their own the credit of having a pure and true, nay, any concept of God, quite forgetful of the fact that a truth does not cease to be a truth because it is accepted universally.

This universal consensus embraces, besides the concept of God, many of the moral commandments which we are accustomed to consider as communicated to man by a special revelation. The commandment to love our enemies and to return good for evil, the most sublime doctrine of Christianity—so sublime, indeed, that Christians themselves have declared it to be too sublime for this world—can be shown to belong to the universal code of faith and morality from which the highest religions have drawn their strength and life. Let me first quote the words of Christ:

"You have heard that it hath been said, Thou shalt love thy neighbor and hate thine enemy. But I say unto you, Love your enemies, bless them that curse you, and pray for them which despitefully use you and persecute you. That you may be the children of your Father which is in heaven: for He maketh his sun to rise on the evil and on the good, and sendeth rain on the just and the unjust."

Now, let us first consult a religion which cannot possibly be suspected of having borrowed anything from Christianity. Let us take one of the three great religions of China, Taoism, such as we know it from the writings of Lao-tze, who lived about 600 B. C. In the xlix. chapter of the Tao-te king, Lao-tze says:

"The good I would meet with goodness, the not-good I would also meet with goodness. The faithful I would meet with faith,

the not-faithful I would also meet with faith. Virtue is faithful. The sage dwells in the world with a timid reserve; but his mind blends in love with all. The people all turn their ears and eyes upon him, and the sage thinks of them all as his children."

In chapter lxiii. he says again:

"Recompense injury with kindness."

How widely spread and how old this doctrine must have been in China, we may gather from some curious remarks made by Confucius, the contemporary of Laotze and the founder or reformer of the national religion of China. In the 'Analects' we read:

"Some one said, 'What do you say concerning the principle that injury should be recompensed with kindness?' The Master said: 'With what will you recompense kindness? Recompense injury with justice, and kindness with kindness.'"

This is evidently the language of a philosopher rather than of a religious teacher. Confucius seems to have perceived that to love our enemies is almost too much for human nature, and he declares himself satisfied therefore with demanding justice to our enemies—and who does not know how difficult it is to fulfil even that commandment? However, the true prophets who thought not so much of what men are as what men ought to be, insisted on love, or, at all events, on pity for our enemies as the highest virtue. Thus Buddha said:

"Let a man overcome evil by good; let him overcome the greedy by liberality, the liar by truth. . . . For hatred does not cease by hatred at any time; hatred ceases by love; *this is an old rule.*"

Remark here again the same expression, that the commandment to love your enemy is an old rule in the eyes of Buddha as it was in the eyes of Confucius. What, then, becomes of the attempts to show that the doctrine of love towards our enemies must have been borrowed, wherever we find it, from the New Testament, as if that doctrine would become less true because other religions also teach it, or because it had been revealed, in the truest sense of that word, to all who had eyes to see and hearts to love. It is truth that makes revelation, not revelation that makes truth.

To those who see no difficulties in their own religion, the study of other religions will create no new difficulties. It will only help them to appreciate more fully what they already possess. For with all that I have said that other religions also contain all that is necessary for salvation, it would be simply dishonest on my part were I to hide my conviction that the religion taught by Christ, and free as yet from all ecclesiastical fences and entrenchments, is the best, the purest, the truest religion the world has ever seen. To others, again, whose very faith is founded on honest doubt, the study of other religions will prove of immense service. If in my present course of lectures I have proved no more than that the concept of God, in its progress from the imperfect to the more and more

perfect, constitutes the inalienable birthright of man; that, without any special revelation, it was revealed to every human being, endowed with sense, with reason and language, by the manifestation of God in Nature; that the admission of, and the belief, in a real Agent in all these works of nature, is found under various and sometimes strange disguises in all the religions of the world; if, I say, I have succeeded in proving this by facts, by facts taken from the Sacred Books of all nations, so far as they are accessible to us, then my labor has not been in vain.

THE RACE QUESTION.

BY C. STANLAND WARE.

THIS subject continues to attract considerable attention, and Prof. E. D. Cope having again referred to it in *The Open Court*, I am tempted, as an anthropologist, to offer a criticism of his views. In so doing I shall not consider his main proposition, but shall examine the arguments which he uses to justify it.

These arguments are re stated in his latest article, and the first one is that "the characteristics of the negro-mind are of such a nature as to unfit him for citizenship in this country." This conclusion is supported by the statement that the negro "is thoroughly superstitious, and absolutely under the control of supernaturalism, in some degrading form, and the teachers of it. He is lacking in rationality and in morality." This is stated as a general proposition, and therefore it should apply to all those who are thus subject to degrading superstition, and lacking in rationality and morality, whatever the color of their skins or the race to which they belong. Now, I submit, that the negro, as a rule, is no worse in those particulars than the general body of the lowest class among the populations of the south and east of Europe, from which localities many of the white immigrants to this country are derived. Their superstitions are on a par with, and often were exactly the same as those of the African race, and have had, in many cases, a common origin with them. The witchcraft of the middle ages, many traces of which are still discoverable in the Old World, if not in the New World, was undoubtedly derived from the same source as the Voodooism of the Negro, unless, indeed, the latter is an offshoot of the former. It has been said, although I do not vouch for it, that the word *Voodoo* is merely a corruption of the European word *Vaudois*, a name for the Waldenses so cruelly persecuted, on the pretence of witchcraft and other abominable practices, by the emissaries of the Romish church. The rationality and morality of the lowest members of the white race are on a par with their superstition, and, therefore, according to Prof. Cope's reasoning they should be excluded from citizenship when they come to this country. Possibly he

may be prepared to accept this conclusion, but it is contrary to the fundamental principle of the United States' Constitution, and as it cannot be applied to the whites, it is equally inadmissible as against the colored people.

Prof. Cope's second argument appears intended to meet this point. He says that the peculiar traits of the negro "depend on an organic constitution which it will require ages to remove." To give emphasis to this statement, he adds, "corresponding qualities in the lower strata of the white race, are modified or removed in a comparatively short time, on account of superior mental endowments." It seems to me that this reasoning is not justified by the facts. It assumes, on the one side, that the white people of the United States may be taken as representing the whole white race, and, on the other side, that the colored people of the United States may be judged of by the negro of the African continent. Now, what may be true of the inhabitants of one country may not apply to those of another country, although they may belong to the same stock. For example, because, under the conditions presented by native life in Africa, it would take many generations, or ages, to alter the organic constitution on which the traits said to be characteristic of the negro mind depend, it does not follow that the same can be said of the negro constitution under the conditions to which he is subjected in the United States. Assuming the truth of the fact, referred to by Prof. Cope in his earlier article (p. 2053), that "quadrumanous features in all parts of the structure are far more frequently observed in the negro than in the white race." I do not attach the same importance to it in relation to the negro in the United States as he does. There is not merely a considerable probability that the negro is an older race than the Indo-European. It may be regarded as an absolute certainty. And the very fact that he has had a longer period in which to improve than any other race, and yet has failed to do so, is no discredit to the African. For, through the whole long series of ages he has been subjected to climatic and other influences which have not only hampered him in the race of life, but have absolutely prevented any improvement. Remove those influences and replace them with others fitted for progress, and there is no reason in the organic constitution of the negro why he should not in the course of a few generations improve in his mental organization, so as to be quite as well fitted to exercise the functions of citizenship as a large number of the white inhabitants of the United States. I have seen it stated that the negro of this country shows in his physical structure an improvement over his imported ancestors. The mental improvement which accompanies the progress of education, and the constant association with the

white race, must be attained with improved physical development.

Possibly the change for the better in the mental character of the negro may not be so rapid as it would be in the lower strata of the white race; but when we consider the gross superstition prevalent in that strata in some parts of Europe, notwithstanding the many generations in which it has been subjected to the influences of civilization and Christianity, such a statement may be questioned. If, moreover, we give the white race its widest extension, it will be found to include peoples as degraded at least as most of the African peoples. Notwithstanding the color of their skin, there are strong reasons for believing that the Australian aborigines belong to the primitive white stock, and as a race they appear to be absolutely unimprovable. Wherever they come into contact with Europeans they gradually die out. The negro is not thus affected. Neither when left alone, nor when under the influence of Europeans, does he die out. Notwithstanding the unfavorable conditions of slavery, the negroes thrived in the United States, and since their emancipation they have largely increased in number. The Africans evidently have great viability, and there is nothing to show that they have not also sufficient plasticity to become fitted for the privileges of citizenship.

This may be regarded, however, from one standpoint, as an additional evil. Prof. Cope's third argument is that if the Negro remains in this country, he will mix with the whites until, in a half century or less, there will not be a person of pure negro blood in it. He adds, "there will be, in accordance with the usual rate of increase, an immense population of mulattoes, where there should be an equal number of whites. The deterioration thus resulting would tell disastrously on our intellectual and moral, and consequently on our political prosperity." This superstructure is raised on a frail foundation. Prof. Cope must produce statistics to show the number of mixed marriages, before his conclusions can be accepted. I am told that the pure-blooded colored people look down upon those who have white blood in their veins. It may be doubted, therefore, whether the statement (p. 2110) that "the inferior race has never been known to resist the attractions of the superior to any great extent . . . least of all the negro," is true. Of course there is a certain amount of race mingling, chiefly between white men and colored women, but where there is so great a difference as between the Negro and the European, it has not been shown to exist to any great extent. The existence in the near future of an immense population of mulattoes is far from probable, and in my opinion is impossible. This view is confirmed by the facts mentioned by Mr.

Moise in *The Open Court*, p. 2086. But surely, in any case, Prof. Cope cannot be correct in asserting that there should be an equal number of whites in the place of his immense population of mulattoes! The mulattoes are to displace all the pure negroes, and if there ought to be an equal number of whites, these should displace the negroes too. But how are they to do so? Not by intermarriage, as this produces mulattoes: and, unless deported, the colored people will continue to increase in number by marriage among themselves.

For the reasons above stated, Prof. Cope's inference that a disastrous deterioration in the intellectual and moral, and consequently the political prosperity of the white race will take place owing to the intermixture of races, may be regarded as unfounded. But, further, I question whether we have sufficient data to enable us to say what would be the actual effect of such an intermingling of blood, if conducted on the large scale supposed. Prof. Cope says, "with a few distinguished exceptions, the hybrid is not as good a race as the white, and in some respects it often falls below the black, especially in the sturdy qualities which accompany vigorous physique." Probably the conditions of the union have much to do with the result. In Madagascar the superiority of the chiefs in many tribes is usually ascribed to the fact that they have Arab blood in their veins. If the intermixture were more general, as would necessarily be the case if Prof. Cope is right in his idea of what will happen within the next fifty years, a different result might possibly accrue from that which he pictures.

Prof. Cope regards the question of race as of greater importance in its results than that of negro rule. But if the negro is fit to rule, which is the chief prerogative of citizenship, his race characteristics ought not to be of much moment. As to whether he has capacity or not, no evidence is given. He stated (p. 2053) that the unfitness of the negro to exercise the privileges of a citizen and a voter, "was asserted before hand, and has been demonstrated by many years of experience since" and that "there is plenty of evidence to show that negro rule is a travesty of government," and I presume Prof. Cope is right. But, so far as the negro in the United States is concerned, we must remember that little more than a generation has passed since slavery was abolished, a time hardly sufficient to allow us to judge properly of the effect of the experiment. If it is true, as Mrs. Mary Gunning states in *The Open Court* (p. 2134), that laboring colored men in Florida "walk miles to the office of registration to ensure the exercise of the ballot," the fact shows that they appreciate the privilege of voting, and this appreciation will not exist without the power of exercising it properly.

To affirm, as Prof. Cope does (p. 2110), that "the negro has utterly failed in all but absolute governments, whatever they may be in name," is beside the question. Such a supposition as that the colored people will ever be in a position, numerically or otherwise, as to govern the United States, directly or indirectly, appears to me to be vain. Ruling in the sense of depositing a vote in the ballot-box, or even of electing a few municipal officers, is very different from carrying the legislature of a State or of the Union, so as to establish another form of government, and I doubt whether a fear of any such result has much weight in Prof. Cope's mind.

I do not propose to refer to the scheme for the transportation of the seven millions of negroes to Central Africa, under the auspices of Mr. Stanley, beyond saying that the facts do not seem to require any such extreme measure. The Hon. Wm. C. P. Breckinridge, speaking from the Southern standpoint, says in *The Arena*, "we know we have to carry the negro with us as we go upward in the race of life, or that he will pull us down. We know that everything done, that makes him a better man, more capable of self-support, more provident and frugal, is advantageous to us." Considered in this spirit, the race problem ought not to be insoluble, and if the race prejudice which is the real source in many minds of the agitation on the subject can be overcome, there is no reason why the negro should not become a very valuable citizen, even if he seldom rises above the lower strata of society. If the action of the Federal Legislature is to be evoked in relation to the question, it should be to carry out some scheme by which the colored population should be induced to diffuse itself throughout the states generally, instead of becoming consolidated as a body in the Mississippi Valley, as there appears reason for believing is the tendency. Then, as Mr. Breckinridge says, "the negro would realize that his future depends on the goodwill and conscience of the whites among whom his lot is cast, and he would have every temptation to be industrious, honest, and provident," which is a fair test of a good citizen.

LOCALIZATION OF BRAIN ACTIVITY.

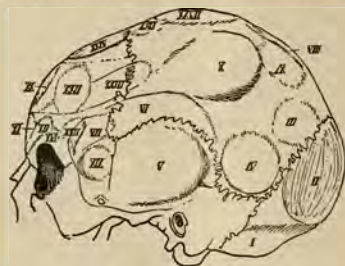
FISSURES AND CONVOLUTIONS.

It is commonly acknowledged that the hemispheres are the seat of all psychic activity. This, however, is true in a limited sense only. Properly speaking man does not think with his brain alone; he thinks with his entire body. Yet in the brain, especially in the hemispheres and the hemispheric ganglions (*nucleus caudatus* and *nucleus lentiformis*), his psychic activity is concentrated. The co-operation of every part of the organism is necessary to produce thought as the final result at the centre of the organism's activity.

Flourens proposed the theory, that the hemispheres performed their functions in a way such that the entire cortex is always engaged in any kind of mental work performed. If part of the cortical substance be lost, Flourens maintains that all the functions will be proportionately affected.

Goltz adopted Flourens's view to the extent of holding, that in case of a loss of cortical matter some homologous substance would perform the functions of the portion lost. The vicarious activity of brain-substance appears to be a well-established fact, although it does not take place to such an extent and in such a way as Flourens supposed. "The different parts of the hemispheres are," as Prof. Hering says, "like a great toolbox with innumerable kinds of tools. Each single cerebral element is a particular tool. Consciousness may be likened to a workingman whose tools gradually become so numerous, so various, and so specialized that he has for every detail of his work a tool which is specially adapted to perform just this kind of work very easily and accurately. If he loses one of his tools, he still possesses a thousand other tools to do the same work although with more difficulty and loss of time. Should he lose these thousand also, he might retain hundreds, with which he can possibly do his work still, but the difficulty increases. He must have lost a very large number of his tools if certain actions become absolutely impossible."

Gall was the first to propound a localization of the different psychic functions. He started from the supposition that the skull being the case of the brain ought to show its formation, and he founded upon this sup-



PHRENOLOGY. (After Gall.)

- | | |
|----------------------------|----------------------------------|
| I. Sexual instinct. | XV. Language.* |
| II. Love of children. | XVI. Painting (sense of colors). |
| III. Friendship. | XVII. Music. |
| IV. Self-preservation. | XVIII. Numbers and arithmetic.* |
| V. Homicidal impulses. | XIX. Mechanical abilities. |
| VI. Smartness. | XX. Comparison. |
| VII. Acquisitiveness. | XXI. Profoundness. |
| VIII. Ambition. | XXII. Wit. |
| IX. Vanity. | XXIII. Poetry. |
| X. Circumspection. | XXIV. Goodnaturedness. |
| XI. Memory for objects. | XXV. Imitation.* |
| XII. Sense of locality. | XXVI. Religion. |
| XIII. Memory for persons.* | XXVII. Enthusiasm |
| XIV. Memory for words.* | * Do not appear in the cut. |

position his phrenology. The skull shows indeed the formation of the brain, but it shows its outward shape only; and even that imperfectly, because different craniums vary very materially in thickness. Yet in judging about the formation of the brain, the internal structures are of much greater importance. Gall's phrenology, being in fact a kind of cranioscopy, is now entirely abandoned.

It is strange that most of the meritorious discoveries of this great scientist are little known outside of a narrow circle of specialists, while the error of his phrenology has become a favorite idea among half-scientific people and has made his name extremely popular.

Gall's idea of a localization of the different functions of the hemispheres has been revived in later years, yet upon another basis and in an entirely new shape. The modern conception of localized brain-functions is based upon experiments and affords at the same time a more precise and definite idea of the *modus operandi* of the brain.

The outward surface of the cortex looks like a tract of land in which many rivers and brooks have produced furrows. The furrows are called *sulci* or fissures, and the ridges between them are called convolutions. The fissures are produced to effect an



THE LEFT HEMISPHERE. (After Houle.)

The fissure of Sylvius is drawn aside so as to show the extent of the insula. The insula contains one long and two short convolutions, called *gyrus longus* and *gyri breves*. The cortical substance which covers the insula in *a* is called *operculum*.

In. Insula.

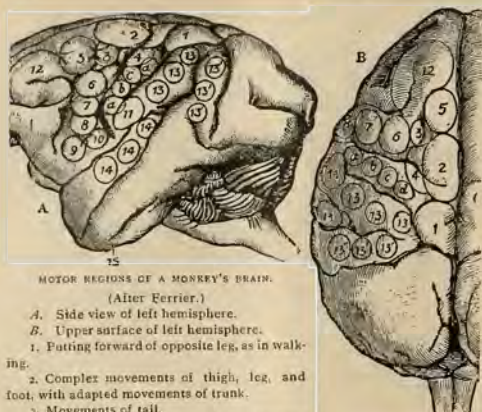
Sc. Sulcus centralis, or fissure of Rolando.

Gca. Gyrus centralis anterior.

Gcp. Gyrus centralis posterior.

economy of space; in so far as by their presence the area of cortical substance is greatly increased without any considerable increase of the size of the head; and it has been observed that the higher the intelligence of an animal is, the richer is its brain in convolutions.

The immediate cause of the fissures are the arteries. The cortical substance is in greater need of arterial



MOTOR REGIONS OF A MONKEY'S BRAIN.

(After Ferrier.)

A. Side view of left hemisphere.

B. Upper surface of left hemisphere.

1. Putting forward of opposite leg, as in walking.
2. Complex movements of thigh, leg, and foot, with adapted movements of trunk.
3. Movements of tail.
4. Retraction and adduction of opposite fore-limb.
5. Extension forward of opposite arm and hand, as if to reach or touch something in front.
6. Successive complex movements of fingers and wrist, ending in clinching of fist.
7. Supination and flexion of forearm, by which the hand is raised toward the mouth.
8. Action of the zygomatic muscle by which the angle of the mouth is retracted and elevated.
9. Elevation of the ala of nose and the upper lip, with depression of lower lip so as to expose the canine teeth on the opposite side.
10. Opening of mouth with protrusion of tongue.
11. Opening of mouth with retraction of tongue.
12. Retraction of angle of mouth.
13. Eyes opening widely, pupils dilating, head and eyes turning toward opposite side.
14. Eyeballs moving to opposite side, pupils generally contracting.
15. Sudden retraction of opposite ear.
16. Torsion of lip and nostril on the same side. This place is situated in the subiculum of Cornu Ammonis.

IMPORTANT FRENCH PHILOSOPHICAL WORKS.

CORRESPONDENCE OF LUCIEN ARREAT.

MY DEAR SIR:—

THE present quarter has produced an abundance of books. Of one of these—that of M. Fonillée—I shall reserve what criticism I have to make, that I may be able to speak more at length of it in my next letter. While two others—*Le Problème Religieux au XIX. Siècle* (The Religious Problem in the Nineteenth Century), by M. J. E. ALAUX, and *Rapports du Relatif et d'Absolu* (Relations of the Relative and the Absolute), by M. FELIX CELLARIER—I shall merely mention.

M. Alaux for some time has been engaged in the work of reconciling the spirit of philosophy with the spirit of religion—science with faith. But he does not view the subject in the light that your magazine does; and the investigation of God that he assigns to philosophy, as well as religion, we relegate without qualification to the province of ancient metaphysics. You would not accept "the Catholic Faith, transformed," which to M. Alaux appears the only acceptable solution.

As regards M. Cellarier, he takes us back to the problems of ontology, of finality, and the like. He seeks another way of reconciliation—that of the Relative and the Absolute—and over and beyond this he aims at the establishment of a theory of cognition. He is a man of concepts and a logician. But when the concepts are substanceless grains it is very much to be feared that the mill-stone of logic will never produce flour. Some attempts at reconciliation make us think of "that affair which will come off Sun-

day and which will perhaps not have been accomplished on Monday," as Madame de Sévigné said of the remarkable marriage of M. de Lauzun to the *Grande Mademoiselle*.

By way of amends I shall recommend to your attention an interesting work by M. PAUL JANET, *La Philosophie de Laurencius*. This is a very curious piece of history; and highly instructive, too, from the comparison that it suggests between our state of mind and that of the great polemic, who affords the strange spectacle of the conversion, from religion to free-thought, of a man who besides being a clergyman, had reached his maturity.

It is scarcely necessary further to recommend the new book of Dr. J. LUY'S, *Les Emotions dans l'Etat d'Hypnotisme** (The Emotions in the Hypnotic State), and an important work by Dr. S. IGARD, *La Femme pendant la Période Menstruelle, Etude de Psychologie Morbide et de Médecine Légale* (Woman during the Menstrual Period: a Study in Morbid Psychology and Medical Jurisprudence). These highly special studies in pathology interest philosophy proper less directly than philosophers, for whom they constitute a great storehouse of facts.

Again, we find a thesis for the doctorate, *Essai sur les Données Immédiates de la Conscience* (A Disquisition upon the Immediate Data of Consciousness); by a new author, moreover.

Of the Hebrew race and of Polish nationality, M. HENRI BERGSON is unquestionably a distinguished thinker; and he possesses the advantage, now become rare among philosophers, of handling mathematical instruments with facility. On the other hand, his knowledge of physiology is not extensive. I should not like to pass judgment upon him from this thesis, where the desire is too much betrayed to produce something new, and where the "university wrinkle" is also somewhat too apparent. M. Bergson's manner is plausible and subtle; but he is not always clear. He opens again the old drawers of the theory of cognition, without succeeding in imparting to them greater facility of movement, and he seeks to establish, in particular, that the problem of freedom and free-will is nothing more than the modern form of the sophisms of the old Eleatic school. He attacks the error of the psychologists who persist, as he says, "in putting in space phenomena that do not occupy space"—as states of consciousness—and who improperly translate "non-extension into extension, and quality into quantity." His own error is perhaps the belief that we can never get rid of all the illusions of the mind, but that they appear necessary; the best we can do is to bear with them, and remain naïve realists, under pain of understanding nothing at all.

More sincere is the new posthumous work of GUYAU, *La Genèse de l'Ide de Temps* (The Genesis of the Idea of Time). M. FOUILLEE has supplied it with a very compact introduction, in which he examines the Kantian theory of time and compares it with the evolutionary theory.

Guyau's doctrine may be epitomized in the following two propositions: (1) we derive Time from Space; and (2) we construct Space, like we do Time, from our actions, our desires, our intentions. "It is contrary to the true laws of evolution," he writes, "to attempt, as Spencer does, to construct space from time, when on the contrary it is from space that we get our notion of time." Neither has discrimination, the primordial element of intelligence, need of the idea of time for its proper exercise, since time on the contrary presupposes it; nor is the notion of sequence, to which Spencer refers time, a primary notion. "Primitively, all things co-exist, and both tactile and visual sensations tend spontaneously to take a vague spatial form, without distinction of time, and without precise dimensions." "The *deant être* is that which I have not and which I desire or have need of. . . . A being that desires nothing, that aspires after nothing, will see time vanish from his

* M. Loys's work is published by J. B. Baillière. Félix Alcan is the publisher of the other works mentioned.

sphere. The future is not that which comes towards us, but that towards which we go." "Succession is an abstract from motory effort exercised in space; from effort, which, when it becomes conscious, is intention." "The idea of time, like that of space, is empirically the result of the adaptation of our actions and of our desires to one and the same medium, unknown and perhaps unknowable." "Movement in space has created time in the consciousness of man. Without movement no time." "The leaves of the atlas of time are distances, places, and local scenes." "Eternity is either nullity or chaos; with the introduction of order into our sensations and thoughts time begins."

By the side of the study of Guyau we will place that of Dr. PH. TISSIE, *Les Rêves, Physiologie et Pathologie* (Dreams: Their Physiology and Pathology), with a preface by Prof. Azam. This also is a monograph. It is indeed not very well executed, and upon the whole it is less complete than the work (now old) of M. Alfred Maury; but it is interesting. M. Tissie studies the formation of dreams in natural, morbid, and hypnotic sleep. He establishes the influence of dreams upon ideation and upon actions performed during both the sleeping and waking states. He shows, in fine, the relation that exists between sleep on the one hand, and dreams, hallucinations, the duplication of personality, auto-suggestion, and the suggestion and recollection of memories, on the other. This relation is even *a priori* conceivable, in the sense that the author takes it, which is that the equilibrium between the functions of the two egos, the splanchic (or visceral) and the sensorial, constitutes the physiological and psychic ego such as it is comprehended in the waking state, while the overthrow of this equilibrium produces the ego of the sleeping state. In sleep the splanchic ego always continues to perform its functions; but the sensorial ego is deranged, and its episodic memories are aroused at random from impressions received, forming the most singular combinations.

The analogy established by M. Tissie between the different states of sleep is legitimate, and the facts adduced directly confirm it. We are concerned here with species of the same genus: I mean the dream considered under its physiological (or natural), pathological, and hypnotic aspects. The analogy no longer possesses this value when it is transferred from suggestion to education, as for example Guyau has done in his *Education and Heredity*; or, what is the same thing, from suggestion to imitation, as M. Tarde does in the work which yet remains for me to speak of. It furnishes, here, nothing more than a term of comparison, and explains nothing. Between the two orders of facts that are ostensibly brought together by the analogy, there is plainly a hiatus much too profound.

Les Lois de l'Imitation, Etude Sociologique (The Laws of Imitation: A Sociological Study) is the title of the work of M. G. TARDE, just mentioned. The author is already known to you, at least by his *Criminalité Comparée*. The tact of the psychologist is united with the experience of the jurist, in M. Tarde. He strives, perhaps, after originality; but he finds it. There is always something unexpected, something new in what he writes. His present volume, a little too copious and luxuriant, contains treasures, and to a certain point its contents are a surprise.

What is society? M. Tarde writes. It is imitation. Imitation is the soul of social life. And what is imitation? A simple effect of suggestion. The man of society is a somnambulist; we live by repetition and routine. Social statistics become the applied study of imitation and of its laws; history, the collection of the most successful events, that is to say of the enterprises most imitated; the destiny of imitations is the sole thing that interests the historian. That which is invented or imitated is an idea or a volition, a judgment or an intention. Success is the issue of a logical duel between ideas. Imitation, in fine, proceeds from within to without:

the imitation of ideas precedes that of their expression, imitation of ends, that of means.

This is his thesis, or rather his theses—in rough outlines. Hitherto, sociologists, particularly the Positivists from Comte to Spencer, have studied concrete social action, regarded as the out-and-out product of human activity. M. Tarde aims to study the social factor, man himself—to refer sociology to psychology; and he believes he is thus in a position to construct a pure science of sociology, applicable to all societies, present, past, or possible. I do not believe that his method is equal to that task. Imitation, unquestionably, is an agency of great importance. But when we come to examine that which has been invented and which will be imitated, we are unavoidably obliged, it seems to me, to make invention apply to the general conditions of social life—race, habit, barter, wants, intellectual expansion, etc. And sociologists will always arrive at last at the question whether the succession of inventions does not present a certain regularity, in other words whether there are not laws that govern the historical evolution of our species. (The word *law* I beg you to pass over, since it would demand an explanation in the connection in which I have employed it.)

In a work which I discussed in my previous letter, M. Coste has rightly attempted to characterize the principal factors in the evolution of economical facts.

Either I am egregiously mistaken, or M. Tarde will have to go back over the old beaten paths when he comes to formulate in precise terms the logical laws of imitation, and to follow out their application to the concrete and ordered facts of history. However that may be, I recommend the reading of the book. It forms the principal subject of our present letter—which it is high time, I think, to close.

The spirit of philosophy has not remained inactive in France, as you see. Accompanying the traditional bits of old lumber and the usual paradoxes, there are acquisitions that appear real and solid.

PARIS, April, 1890.

BOOK REVIEWS.

CÆSAR'S COLUMN. A Story of the Twentieth Century. By Edmund Boisgilbert. M. D. Chicago: F. T. Schulte & Co. Pages, 367. Price, \$1.25.

This book was doubtless suggested by "Looking Backward," but it is as pessimistic as Mr. Bellamy's was optimistic. According to "Dr. Boisgilbert" (understood to be a pseudonym) American civilization is going from bad to worse and complete destruction awaits it towards the close of the twentieth century. In 1988 the men and women show their deterioration in their very features; there are no good faces among the men, and the women are immodest and bold, "splendid animals and nothing more." The aristocracy of the world has become Jewish. Immigration has gone on unrestricted, the poor have become so poor that they never eat meat unless it is a rat or mouse, nor do they marry, being unable to pay the fee. The workmen are bribable and would mortgage their souls for a hundred dollars. The old yeomanry have given place to cruel and bloodthirsty peasants, who murder, when the time comes, for the fun of it. Free speech has been forbidden. The forms of a Republic continue, but the real centre of government is in the palace of a disgusting libertine. Religion itself has become vulgar, even sensual; and ushers, dressed like guards in uniform, keep poorly dressed people from entering the churches. It is no wonder that suicide has become popular; hundreds of persons in New York City daily dispose of themselves in this way with elegance and dispatch. But a grim giant with a "negroid" skin—Cæsar by name—has organized a "Brotherhood of Destruction" to do away with all this rottenness, and one fine

day a quarter of a million bodies find themselves strewn about the streets of New York. The corpses are piled up into a pyramid designed to reach to the skies and to last while the earth stands—captive merchants, lawyers, and clergymen being the workers in this scene, while the victorious proletariat stand over them as taskmasters, flourishing whips and clubs and filling the air with oaths. Hence the title of the book, *Cesar's Column*.

It is evident that these colors are laid on too thick to have much impressiveness for the reader who has not been brought up on the cheap sensational literature of the day. The author has probably good intentions, even pious intentions. More than once he reminds us that "God lives beyond the stars," and "smiles down from his throne beyond the stars." The principal characters have "family prayers" and join fervently in "supplications to the throne of grace." In the new constitution which they, with a remnant of mankind (for destruction has overtaken not only America, but all Europe) form in Africa, "we first of all acknowledge our dependence on Almighty God." Still piety and good intentions do not of themselves make a readable book. The author, unlike Mr. Bellamy, essays to make a story with incidents; but there is hardly a character that possesses life, likeness, or spontaneity. We read of Estella's "blue eyes bright as stars" and of "her long golden hair"; but personally she is a nonentity. The plot is artificial and moves like a mechanism. We have heard one innocent reader say that now she understood something of the plots of the Chicago Anarchists; but the "Anarchists" were lambs compared with the doubly-dyed villains who lead the "Brotherhood of Destruction." It is too bad that the author should not have played on his theme to better advantage. For that there is danger as well as promise ahead for our civilization, no thinking person will deny. But all is made so monstrous in this book, that it is indistinguishable from melodrama. At the same time the author has scattered excellent suggestions here and there; and he has evidently thought more deeply on the social question than have those who attribute all our ills to laws or the absence of them. "Indifference to the great laws of brotherhood which lies at the root of Christianity" he sees is the root of the trouble. He shows plainly that a brutalized and fierce proletariat can destroy, but are powerless to reconstruct society. The preface is the best part of the book and shows that the author can write with power.

W. M. S.

PHILOSOPHIA ULTIMA; or The Science of Sciences. Vol. II. By Charles Woodruff Shields, D. D., LL. D. New York: Charles Scribner's Sons. 482 pp. Price \$3.00.

Over a year ago we reviewed in our columns the first volume of the present work, and pointed out wherein the method of Dr. Shield's differed from that which *The Open Court* employs in the solution of problems that arise about the question of the reconciliation of religion with science. The present volume is occupied, (1) with the History of the Sciences, and (2) with the Logic of the Sciences. This division, with its preliminary chapters, corresponds to Dr. Shield's formulation of the purpose of philosophy in the questions: What can we know? How can we know? Why should we know? What the *Philosophia Ultima* is, may be derived from this. It will appear, says Dr. Shield, that the solution of the questions formulated would exhaust the whole problem of philosophy. But the endless pursuit and ceaseless acquisition of knowledge are, in the nature of the world and things, all that is conceivable and possible. Constant progress in the realm of wisdom is the task that is set us, but never perfect fulfilment. Accordingly, final philosophy—the *Philosophia Ultima*—is not, as its name might imply, a "finished system of perfected knowledge," but an "ultimate or ideal scheme of research" derived, we might say, from the present spirit and tendency of inductive investigation and the formal nature of the

human mind,—in other words it is the ultimate method to be employed in the pursuit of truth.

This enlightened view of the progress and nature of human knowledge, the author supports with utterances of uncommon insight and excellence. But it is often difficult to reconcile with later positions the spirit that in the introduction dictates the acceptance of that grand saying of Lessing, one of the most precious of our heritages from him, that "did the Almighty God, holding in his right hand *Truth* and in his left hand the *ever-living impulse to seek the Truth*, ask him which he would prefer, he would fall into the left hand of the Lord, and say, with humility though without hesitation, Give me the impulse to seek the Truth." For the acceptance of that supremely ethical idea demands the rejection of revelation as a source of knowledge; yet Dr. Shields concludes the chapter on the "Purification of the Sciences" with the assertion that "philosophy, in order to accomplish its highest aim and function as the science and art of knowledge, must begin by proving revelation and reason to be joint factors of knowledge" . . . and that "the very foundations of a complete philosophical system must be laid partly in natural theology and the Christian evidences." Surely, this is choosing what God holds in his right hand.

It is the thesis that a theory of revelation is needed to complete the special sciences—not the classification of theology and revelation among the sciences—that we object to, and that we think is contravened by the very method of historical presentation Dr. Shields employs. The surest cure for the notion that the special sciences need the complementary aid of revelation for their perfection, is to be found in the study of the history of the evolution of scientific knowledge.

But notwithstanding this difference of opinion in a point of fundamental importance, and at times a criticisable tendency to mysticism, we pay—and gladly—the tribute of our highest admiration to the sweet purity of tone, the liberality and impartiality of spirit that pervade the work. The book is written in an attractive style and evinces a range of reading and a power of epitomization that are truly striking. Its serenity and earnestness, others would do well to imitate.

muok.

NOTES.

We announce the publication this week of a new work of three hundred and three pages entitled "Wheelbarrow." It contains the articles written, and discussions carried on, under Wheelbarrow's name during the past three years in the columns of *The Open Court*; including the controversy on the Ethics of the Board of Trade, by Wheelbarrow and Sympatizer (Mr. Lyman J. Gage), and the correspondence on the Single Tax Question with Mr. Hugh O. Pentecost and others; also the essays on Thomas Hood, Gerald Massey, and Robert Burns, "the poets of liberty and labor," and an autobiography of the author. (\$1.00.)

It may be of interest to our readers to know the subjects that remain to be treated of in the editorial series on the physiology and psychology of the brain. They are (following the essay in this number on *Fissures and Convulsions*), 1) Loss of Brain-Substance, 2) The Centre of Language, 3) The Sensory Centres, 4) Experiments on Animals, 5) The Organ of Consciousness and the Seat of Intelligence.

Mr. W. M. Salter in a recent communication kindly calls attention to a passage from the *Libation of Æschylus* (Powers, line 496), which he thinks admirably fits the thoughts set forth in the articles of Mr. E. C. Hegeler on Immortality. It reads:

"For children are the voices that preserve
Man's memory when he dies."

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THE FALLACIES OF REALISM.

BY W. R. TRAYER.

DURING the past century Democracy has been supplanting Feudalism. Society no longer means—as in the days of absolute monarchies—merely a royal beast and a few thousands of noble, clerical, and military parasites,—all the rest of the world being but fodder for his appetite; but it includes everybody, high and low, best and worst. Each class, each individual has significance; all shall be heard. And Literature, which is the truest expression of human society, no longer confines itself to recording the adventures of dukes and princes and the amours of ladies of noble birth, but it has become unreservedly democratic. But the literary catholicity, which is associated with this modern social system, is not new. It does not belong, as the recent advocates of Realism in Fiction would persuade us, peculiarly to that method. You need but to turn to the two oldest masterpieces in literature—the epics of Homer and the *Book of Job*—for imperishable examples of catholicity. To be sure, many of the personages in the Homeric epics, and in the dramas of Æschylus and Sophocles, are gods and demigods, kings and princes; but we are interested in them, and cultivated readers will always be interested in them, because they are—in spite of Olympian and royal externals—so very human at heart. Nor has it been observed that snobs and tuft hunters in either hemisphere, who parade their acquaintance with the aristocratic or the illustrious, are devoted students of Shakespeare, although many of the characters in his plays bear royal titles. Not the least of the inestimable lessons we learn from Shakespeare is this: that the elemental passions are common throughout human nature, differing in degree but not in kind, and not to be put off or on with this or that symbol of social position. A simple lesson, indeed; but not so simple but that the majority have failed as yet to master it; for the majority still persist in regarding the mere wearing of the symbol as evidence that the wearer has a right to it: the black gown of the priest, the white necktie or surplice of the clergyman, presumably endow their wearers with piety; a sheep's-wool wig, by some mysterious virtue, communicates to the head beneath it all the dignity and wisdom of Jurisprudence herself. So we do not exaggerate, when we say that

the endeavor of enlightened men in literature and in public life has been from the beginning, to show the exact nature of the substance of each symbol, to point out the misuse of symbols and to condemn their perpetuation, whether in religion, or in politics, or in social affairs, after the qualities which they once denoted, have ceased to exist. And just as far as Realists accomplish this, they carry on the beneficent work of great men in all ages, and deserve our approval.

The modern Realist, as represented by Zola, differs from the past masters of literature from Homer to Goethe and George Eliot, not because he alone deems any human being worthy of delineation, but (1) because he studies mankind from the point of view of the naturalist, and (2) because he would employ only the faculty of observation to the exclusion of the creative faculty. Let us examine a little what these mean.

The Realist assumes, in the first place, that, because man belongs by his physical constitution to the "Animal Kingdom," the novelist should use in studying men those methods which the naturalist uses in studying a rabbit or an oyster. Regarding man as a material organism, the Realist assumes, further, that all the processes of human thought, all the operations of the moral and æsthetic faculties, can be reduced to chemical or dynamic terms. In other words, he limits himself to materialistic methods and explanations. This being true, we might from the start predict, that a school of fiction which proposes by materialistic methods to study and interpret human thought in its highest manifestations—in motives, that is, and in passions—must be inadequate.

Zola assumes, that, since medicine which had been treated as an art, could be and ought to be treated as a science, a similar reform is possible in the treatment of fiction. I will not pause to give my reasons for believing that medicine itself can never be an exact science, but I wish to point out, how very dangerous, how very unscientific, the assumption is in itself. Common sense tells most of us that reasoning from analogy is not the same as reasoning from facts; and experience is ever busy to confound and punish us when we do not heed this teaching. The physician has a definite end in view, and to achieve it he employs certain methods: the novelist has also a definite end, but not at all that of the physician: to assume,

therefore, that the methods which help the physician will consequently be the most serviceable to the novelist, is to disregard the fact that their provinces and aims are not identical. Yet on this assumption, which he accepts as a fundamental axiom not needing proof—on this inference from analogy—M. Zola rests and builds his system of Realism. Here is science, indeed! Let us take an illustration by which the absurdity of basing arguments on analogy may be made perfectly plain: A gardener has a son to bring up, but having had no experience in educating children, he assumes, that his method of raising plants is suitable for this case. So he carries the boy into the greenhouse and sets him into a large flower-pot, and keeps him upright by tying him to a stout stick: and of course he does not omit the manure round the feet, or the sprinkling with a douche twice a day; and the temperature of the greenhouse is kept uniformly at 80°: and if the gardener be like all other gardeners, he will write the boy's name in Latin with a pencil on a slip of wood, and stick this into the earth near the little specimen's feet, so that every visitor may puzzle over it and mispronounce it. Very possibly, the child's cries may inform the father of his mistake ere it be too late; but what shall we say to men who announce that they possess the only true system of writing novels and poems, and of painting pictures, and who yet gravely fortify themselves with reasoning from analogy not a whit less illogical than that of the gardener? But you may declare, and may with reason declare, that, although inference from analogy is never scientific and often leads to absurdity, as in the imaginary case I have just cited, yet there are instances in which the same method can be properly applied to two very different kinds of work: and you may ask whether this may not be true of science and novel-writing. Let us, therefore, examine the matter a little farther.

In the first place, the purpose of literature, and not of literature only but of all high arts, is not identical with the purpose of science. Man being many-sided, nature and human nature present divers aspects to him: there is the aspect of facts, of knowledge, of which science is the interpreter; there is the aspect of morals, of conduct, which is the domain of religion, of ethics; there is, finally, the aspect of beauty, of which art is the expression: all distinct and mutually independent, yet so mysteriously connected that he who penetrates deepest, sees in each the light of all. Here again, an example or two may serve us: A geologist looks upon a mountain-range as a volume of geological facts; a painter looks upon it as a landscape, and tries to express through the medium of drawing and color the sentiments it has stirred in him. To an anatomist a human body is a subject to be dissected, for the better understanding of its structure

and functions; but to you that same body may be a father or a sister. Niagara appears to the practical man as but a vast amount of wasted water power, which ought to be employed in turning a thousand mill-wheels; to the physicist, it is a stupendous concrete illustration of dynamic laws; to the artist, it is an object at once sublime and beautiful, the symbol not only of the eternal forces of nature, but of spiritual forces. If we seek for examples in human society, we shall find the same diversity of aspects. A burglar with a broken leg is brought to a hospital for treatment, and the surgeon—the representative of science—sets the fracture, without reference to the character of the patient; but when the burglar is brought before the court, the judge,—who represents the moral aspect, the conscience of society,—punishes him according to law. These are simple instances and self-evident, but not so simple nor so self-evident but that they have failed to convince the Realist, who proposes to describe life for us under one only of its aspects—that, namely of science; and, with an assurance common to all zealots, and to all those who mistake a fragment for the whole, he declares that his description alone is true! Nothing annoys him so much as to be reminded that the moral sense and the artistic sense are also parts of human nature, and have, therefore, an inviolable right to be interpreted and satisfied.

Even from the scientific standpoint the Realist has set for himself an insuperable task: his own personality and the personality of every human being, make it impossible for him ever to deal successfully with human nature, as the scientist deals with inanimate nature. Chemical substances are invariable; water will always be reducible to two parts of hydrogen and one part of oxygen. The moral character, the prejudices of the analyst, cannot effect this result; all that is needed, is skill enough to perform the experiment. So, too, the multiplication table and the laws of physics and astronomy, depend not at all upon human variations; but they are always verifiable by any one who has sufficient knowledge to apply the rules for their verification. Scientific facts, therefore, are not matters of opinion: but the moment we come to theories of the universe, and to the interpretations of human life, we enter the region where the character and the temperament and the knowledge of the interpreter enormously affect his conclusions. In this region, speaking in the largest sense, there are no facts, but only opinions; and these opinions rise to the dignity and cogency of laws when they have been verified by the general experience of mankind. So literature, in the words of Matthew Arnold, "is the criticism of life"; and the nature and value of his criticism, the estimate he puts on life, depends upon the personality of the critic. But Zola disregards this personality

altogether. He likens the experimental novelist to a photographer, who has but to expose his plate in order to get a required representation: but the plate in this case is the photographer's own mind, which differs in size, in clearness, and in sensitiveness from that of every other human being; and no two negatives can be identical, though they may be similar. When M. Zola hands us a view, and says: "This is the exact truth," we know that he means, "This is the truth as Zola sees it." And we take his picture, and compare it with those which Homer, and Shakespeare, and Fielding, and Thackeray, and George Eliot, and many another portrayer of life has made, and we judge by means of this comparison and by our own experience, how much of absolute truth Zola's mental camera has reproduced. Moreover, after making allowances for the flaws in M. Zola's plate,—or, as scientific investigators express it, after having found his personal equation,—we have still to set a value on the truth he illustrates; for all truths have not a common value. Some are low and cheap, as, for instance, the truth that you will wet your feet if you walk in a puddle; some are high and inestimably precious, as for instance, that truth which the human race wandered for ages before reaching it, that we should do unto others as we would have them do unto us. So that we may be obliged to say to our Realistic novelists: "We do not deny the verisimilitude of your photograph, but we object to the truth you bring, because it is vulgar and petty." We see, therefore, that the personality of the observer of human affairs must inevitably and forever prevent the achievement of that task which the Realist undertakes.

The result of his experiments—the criticism of life—will be dyed by the color of his mind. The personality of Socrates and of Shakespeare impresses itself as indelibly on their works, as that of Zola impresses itself on his work: according to our reason and experience we accept or reject the conclusions of each. Sir Isaac Newton's personality could not affect the laws of gravitation: but our opinions of life and conduct depend upon our individual nature; they will be optimistic, if we resemble Emerson, pessimistic if we resemble Schopenhauer. Claude Bernard states this clearly: "In the arts and in letters, personality dominates all. *The question there is, of a spontaneous creation of the mind, and this has no more in common with the verification of the natural phenomena, in which our mind must create nothing.*" But Zola, beguiled by his seductive inference from analogy, and busy in erecting his theory of Realism, paid no attention to this unanswerable objection of his guide and master; merely expressed his surprise that Bernard should make such an objection,—as if the expression of surprise were equivalent to logical refutation. "I am

at a loss to understand to what branch of literature Claude Bernard refers; without doubt he is thinking of lyric poetry." That is the scientific reply, Zola makes to the truth which invalidates his theory!

But even if a few men were so unfortunate as to possess minds as impersonal and characterless as a photographic plate, and eyes as keen as a microscope, the literal accomplishment of the aim proposed by Realists would be impossible, because the fact of personality would still dominate all mankind except themselves. Every human being is a new combination of physical and intellectual elements. He has, of course, many qualities in common with his race, but he has also that unknown quantity—his identity, his individuality—which eternally distinguishes him from every one else. Any drop of water can be resolved into its component parts of oxygen and hydrogen; but you can never resolve Brown with so many parts of Jones and so many other parts of Robinson. The points of difference which make him Brown, are precisely what have to be determined; and in every case this unknown quantity has to be solved anew, and as a complete solution would require a knowledge of every thought and of every act from birth to death of each subject; and as nobody could register his own thoughts as fast as he thinks them, not to speak of knowing and registering those of another person, we see that M. Zola and his disciples in Realism now and forever have as much chance of producing a scientific novel, as they have of bailing the ocean dry with a tea-spoon. Once more, they have been led astray by their unscientific acceptance of inference for fact. It seems plausible to conclude that those methods which Darwin employed in his study of orchids, and Lubbock in his study of ants, will suffice for the adequate interpretation of human beings! Yet Darwin could never explain *why* one orchid varied, however slightly, from another on the same stem, he could only describe the variations; and Lubbock's microscope has never pretended to see the thoughts operating in the brain of a single ant, though thought there surely is, and ants may have their language and conversation far beneath the reach of human ears. Scientific exactness being thus unattainable even at these comparatively low levels, may we not almost dare to call him rash who asserts the attainability of this result at the immeasurably higher level of human life, where the external which counts for so little, can alone be scientifically observed, while the internal—the processes of thought, the conflict of motives, all that which really distinguishes men from inferior creatures—can only be guessed at? Law unquestionably governs the world of mind as well as the world of matter, but it is a law infinitely more complex and mysterious, and can

never, I believe, be determined by callipers, nor magnifying-glass, nor crucible.

These are the insurmountable barriers which nature interposes between the Realistic Novelist and the accomplishment of his design. Nevertheless, we must admit that, by following his methods to their utmost limit, he might penetrate more deeply than has hitherto been done into the subtle relations between the body and mind. We can never know too much about the way in which the temperament is affected by its physical constitution; how they react on each other, and modify each other; and we need not fear that the minutest probing will show conclusively that thought is only a manifestation of chemico-physical processes. Such Realistic works might be invaluable, but they would no more be literature than Newton's *Principia* and Darwin's *Origin of Species* are literature: they would be classified with treatises on physiology, social economics, and medical jurisprudence. Literature is the criticism of life; not merely the statement of what a botanist, or a chemist, or a physician knows about one side of life.

A STUDY OF LAVATER.

BY ANNA OLCOTT COMMELIN.

"Your face, my Thane, is as a book,
Where men may read strange matters."
—SHAKESPEARE.

THE Egyptians are credited with being the earliest students of the human countenance, one of whom displayed his skill, at Athens, in the time of Socrates, after which Greeks and Romans became interested observers. Pliny was a believer in Physiognomy, since he wrote that "the forehead of a man is the index of sorrow: cheerfulness, clemency, and severity are read therein." Cicero said that the "countenance announces man's moral character. The glances of the eye indicate the affection of the mind within." Galen and Sir Francis Bacon have expressed belief in this science, the latter declaring that the propensities of the mind were discerned in the lineaments of the body. The Reverend John Kaspar Lavater, a citizen of Zurich, was the first to attempt to prove that Physiognomy is a science, which can be reduced to fixed rules.

In a series of remarkable essays, with many illustrations, he claims the possibility of a complete system, mental states being revealed by the occipital muscle, and the rectus superior of the eye. Lavater was inspired with a genuine love for the science, ranking no study higher, since he says, "What a ray of divinity in that countenance! Everything declares it to be a copy after a Divine Original." He does not, however, confine himself exclusively to the human face, his definition including the entire form, as he says: "by Physiognomy I mean the talent of dis-

covering the interior man by exterior appearance." When we consider the various expressions seen in the human hand alone, we are not surprised at Lavater's decision that Physiognomy, in a large sense, includes every feature, every attitude of body, though, in the more common acceptance of the word, are implied the features and expression of the face only. Some of his ideas may be of interest, as when he finds "intelligence in forehead and eye-brows, moral life in cheeks and nose, animal life in mouth and chin." Those who are interested in specific rules will find them in Lavater's works, with reference to the relation which the mouth has to the whole head, this relation determined by length of mouth viewed in profile, the angle which the line of the mouth forms with the eye, and the distance of the eye above the mouth, which should be about six times the distance of the line of the profile of the mouth. "This angle," says our author, "will be nearly a right one in a wise and good man: the more obtuse, the more it announces a character decidedly animal."

But without studying closely and depending upon the laws of angles and distances, as thus set forth, the modern student may choose to form his estimates and make his judgments by more subtle processes of spiritual cognizance, by which he may arrive at just conclusions. Lavater himself is large-minded, making many concessions, and finding in "some faces, which belong to chameleon-souls, the possibilities of what men might and ought to be." Zopyrus, detecting brutal qualities in the face of Socrates, was confirmed in his statement by the philosopher himself, we read, as he admitted that such had indeed been his traits in early life, but that, by effort, he had eradicated them.

Lavater instances many well-known faces, amongst others that of Cicero, which he characterizes as "luminous and intelligent," that of Plato in which he finds, "wisdom almost divine," and Brutus, in which he sees "unshaken firmness." "Wisdom and probity" are clear to him in Marcus Aurelius, and he discovers the "father of poets" in Homer's countenance.

"I have seen a criminal, with a face like one of Guido's angels," says one author. To this Lavater well replies that "a man born with happy disposition, with delicate and irritable fibres, may plunge into crime, and yet be better than a hundred others, who pass for good, and who are incapable of excess." And here we are reminded of the thought of the poet:

"In men whom men condemn as ill
I find so much of goodness still,—
In men whom men pronounced divine,
I find so much of sin and blot,
I hesitate to draw a line
Between the two, where God does not."

Poets, in all ages and countries, have been believers in Physiognomy. Let us take testimony from

them. Herder speaks of the eyes, as "windows of the soul." Shakspeare says, "there's no art to find the mind's construction in the face." Milton and Dryden are of the same mind, as the former says, "cruel his eye," and the latter sees "counsel" in the human countenance. "Manly majesty sate in his front, and darted from his eyes, commanding all he viewed," we read in *Œdipus*. In *Aurora Leigh*, we find :

"Then she searched through my face,—
Ay, stabbed it through and through,
Through brows and cheeks and chin, as if to find,
A wicked murderer, in my innocent face,
If not here, there perhaps."

Like all other studies, Physiognomy becomes one of deepest interest, when much time and thought are given to it, and the close observer will be repaid for all his efforts in the pleasure of the pursuit, and the knowledge he will acquire. He may find beauty of feature and harmonious coloring, with beauty of soul lacking. He may find the latter shining forth, under imperfect physical conditions. Aristotle, and in modern times our own Emerson, perceived in human countenances traits resembling the brute creation. Coarseness, cruelty, vanity, and shallowness betray themselves, while refinement, culture, kindness, the *spiritual* life will transform the most ordinary features.

Lavater became so skilled, after years of study, that he could distinguish the farmers from one part of England from those of another, merely by observation of the differences in their faces. The modern student will find this science a fascinating one. The profiles of Dante, Savonarola, and George Eliot resemble each other. In the faces of Shakespeare and Burns, the forehead and eyes express lofty intelligence combined with poetic sensibility. In Shelley's broad brow and feminine beauty, we recognize the rare and sensitive spirit that dwelt within, even as seen in the countenance of our own beloved Hawthorne. In that of Longfellow, we see manly strength of character with the refinement of the poet. In Lincoln's we read the record of one of earth's noblest souls. The sad eyes look forth beneath the fine brow, as if pondering on the suffering of humanity,—“with charity to all—with malice to none.”

Charlotte Brontë, in her charming story *Villette*, describes the face of the King of Labassecour, in which she detected and knew the subtle sign of his strange visitant,—hypochondria. The authoress herself gives evidence in forehead, eyes, and features of the genius displayed in her works. The faces of Mary Howitt and Frederika Bremer are interesting as studies. The first expresses intelligence, calmness, and decision of character. The forehead of the Swedish woman, who has charmed us all with her glowing pictures of Swedish home-life, shows intelligence also, and her eyes overflow with kindness and bonhomie.

Had Cleopatra's nose been of a different shape, says one writer, the fortunes of the world would have been changed. The beauty of Helen was the cause of the Trojan war. The face of Mary of Scotland won for her many friends, and made the ill-favored queen of England her life-long and vindictive foe.

"If eyes were made for seeing,
Then beauty is its own excuse for being."

But the physiognomist will not choose the faces of Cleopatra and Mary of Scotland as ideal ones, finding no spiritual beauty in the former, and seeing weakness in the latter, though he may not specify the details of its physical development, as did Lavater when he spoke of one in which he saw "imbecility in the nose, eye, and right eyebrow."

The expression may be changed by study, by cultivation of the intellect, and virtues, and repression of the passions, as Socrates is said to have ennobled his face. The body may become but the dwelling-house for the spirit, in sympathy with it, until, in its best development, we can say with the poet :

"So every spirit, as it is more pure,
And hath in it the more of heavenly light,
So the fairer body doth procure
To habit in : and it more fairly dight
With cheerful grace and amiable sight :
For of the soul the body form doth take,
For soul is form and doth the body make."

Who has not seen faces, defying all rules of symmetry, all laws of physiognomy, that reveal to the subtle observer the finer beauty within? And some of us, too, may have known a face that, judged by all these standards, would not be found wanting, which has given us inspiration by which to live,—a face, as Cervantes expresses it, "like a benediction," or to which we might say, in the inspired words of the dying Bunsen to his wife, "In *thy* face have I seen the *Eternal*."

LOCALIZATION OF BRAIN-ACTIVITY.

II.

LOSS OF BRAIN SUBSTANCE.

It is strange that a man may lose large portions of the cortical substance of his brain, without showing any apparent loss of faculty. If the motor centres are injured, the effect will always be an impairment of the voluntary motions of the opposite side; yet the loss of sensory or other centres in one hemisphere will not be noticeable so long as the other hemisphere remains sound—except that such half-brained persons will tire more quickly than normal people. We may explain this strange fact by comparing it to the condition of a man who has lost one eye. If the loss of the eye were not noticeable (perhaps because the man wears an excellently imitated artificial eye), it would by our ordinary methods of observation be very difficult to detect the loss.

The following facts from which this rule is deduced, are collected in Hermann's "Physiologie," Vol II, 2, p. 333 :

"Berenger de Carpi tells of a young man into whose brain a body four finger-breadths in width and as many in length had been driven so deep that it lay concealed by the matter of the brain. When it was removed a certain amount of cerebral substance was lost, and thirteen days afterwards a second discharge occurred spontaneously. The man recovered, showed no diseased symptoms, lived for a long time afterwards, and attained high distinction in the Church.

"Longet knew a general who through a wound in the skull near the crown of the head had suffered a considerable loss of brain-substance. This defect permanently manifested itself by a depression in the part of the skull affected. The general preserved his activity of mind ; his correct judgment in professional matters exhibited no traces of disease ; only he was wont to tire quickly when engaged in intellectual work.

"Quesnay tells of an old servant whose right parietal bone was crushed. Every day cerebral matter oozed from the wound, and was removed. On the eighteenth day the patient fell out of bed, which resulted in further considerable losses of brain-substance. On the thirty-fifth day he got drunk ; a fresh emission of cerebral matter occurred, which was caused by the patient's tearing away in his intoxication the bandage about the wound. On the day following it could be seen that the defect reached almost to the *corpus callosum*. The patient got well ; his psychical functions were restored to their complete activity ; but he remained paralyzed on his left side.

"During the blasting of a rock, a crow-bar three feet and seven inches long and one and a quarter inches thick struck a young man, and penetrating the head in the neighborhood of the joint of the left jaw, passed through the skull and came out on the same side in the region of the forehead, having thus run through the hemisphere of the brain. The man got well, lived twelve and a half years afterwards, and apart from the blindness caused by the injury to the eye he showed no indications of abnormality, except certain fits of peevishness, caprice, and obstinacy.

"A whole hemisphere may be reduced, without injury to the psychical functions. But in that case disturbances of the motory functions on the opposite side appear regularly to set in.

"A psychically normal individual that—as it happened—was paralyzed since his birth on the right side, died of phthisis. Upon dissection the place of the right hemisphere was found to be filled with some kind of serous fluid."

THE CENTRE OF LANGUAGE.

There is a region in the cortex, a lesion of which produces almost without any exception disturbances and even loss of speech. It is accordingly called the Centre of Language. This region is situated in the island of Reil at the bottom of the fissure of Sylvius and extends over the parts adjacent to the island, especially the third frontal convolution.

The centre of language is unilateral and must be sought as a rule in the left hemisphere. However there are some exceptions. We have reason to believe that left-handed people are right-brained speakers. Left-handed people who had lost the power of speech were found to have suffered injuries in the right hemisphere, but whenever their left hemisphere hap-

pened to be affected they had not lost the power of speech.

Loss of language, or aphasia, may have various causes, and will accordingly present different symptoms. It need not at all be due to a derangement of mental powers but may be a loss merely of the motor capacity of speech. In that case it is more properly called paralysis of speech. The patient may still be able to write what he means. Yet the ability to write may be lost also ; this disease is called *agraphia*. *Agraphia* is not a paralysis of the hand ; it is a paralysis of the memories of penmanship. The hand may be able to perform all the single motions necessary for writing, but the patient has lost the power of co-ordinating these movements so as to write words ; he is like an uneducated man who has not learned how to write. In that case the patient may be able to communicate through gestures or pantomime. Should the power of making gestures be lost also, the patient may nevertheless know everything he wants and may possess full clearness of his mind ; he may think of the words even which he intends to use (as we know from patients who have recovered from such diseases), yet he is not able to communicate his thoughts.

Quite different from these forms of a paralysis of speech is the *amnesic aphasia* which is caused by an obliteration of the word-memories themselves. In that case, the patient can perhaps read and repeat, he can pronounce every word correctly, he can also write from dictation. The different motor centres are unimpaired, yet the words, or certain categories, are no longer at the patient's disposal. They are as if forgotten, blotted out of his memory, and wrapped in oblivion. *Amnesic aphasia* usually shows in post mortem examinations a destruction of the first frontal convolution on the left side where it is in relation with the island of Reil.

As a special form of *amnesic aphasia* we may consider the state in which ideas are not associated with their words. The ideas as well as the words are still extant, yet their connection is destroyed, the fibres of association are interrupted.

We quote from Hermann's "Physiologie" Professor Exner's report of the present state of investigation concerning the cortical centre of speech. Professor Exner says :

"If a man gives an appropriate answer to a question, the following things must, it is evident, take place within him :

- (1) He must hear the words spoken ;
- (2) These words must awaken in him the ideas that belong to them ;
- (3) From the mental operation conducted with the help of these ideas, a resultant product must issue ;

(4) This product must be clothed in words ;

(5) The central innervations necessary to the utterance of these words must be brought about ; and finally

(6) These innervations must arrive at the proper muscles in their proper order and intensity.

"If the first requisite is not fulfilled, we are dealing with a deaf person ; if the last is not fulfilled, most probably with a patient suffering from some affection in the *crus* ; if the mental operation mentioned under (3) is not accomplished, it is a case of dementia ; all other interruptions or disturbances of the above-mentioned processes, viz. (2), (4), and (5), lead to aphasia.

"Cases of diseases occur that are only to be interpreted upon the supposition that the power of comprehension of words mentioned under (2) has been lost. We have here to do with patients that are very well able to speak words but do not understand them, though their hearing be good. An example will illustrate this : *

"A woman 25 years of age, ten days after parturition, while violently straining to relieve her bowels, suddenly became unconscious. When consciousness returned she exhibited no symptoms of paralysis, but was suffering from aphasia and paraphasia.†

"It was with difficulty, or not at all, that she found words to speak with ; she confounded or mutilated them, said "Butter" instead of "Doctor," omitted words and syllables, supplied others, used the infinitive for the determinate moods, and conjugated irregular verbs regularly. Not understanding a single word at first, she was taken to be deaf. It soon turned out however that she heard a knock at the door and even the ticking of a watch as distinctly as ever before ; she distinguished the bells of two different apartments of the house by their sound, etc., etc."

"In cases of aphasia like this, the patient stands in a relation somewhat like that in which we would conceive an intelligent animal to stand that hears well enough the language of the people about him, but does not understand it. The patient cannot properly be compared to a well person that hears a foreign language, since the latter when the name of an object is told him retains the same ; but not so a person suffering from aphasia. As Kussmaul pointed out, these forms of aphasia prove that the locality of the brain with which the sensation of the sounds of single vowels and consonants is connected, is a different one from that in which an acoustical word-image is apprehended as the symbol of a concept."

"No case has come to my knowledge," Professor Exner continues, "in which this 'word-deafness' has not also been combined with 'word-blindness' ; that is to say, if a patient has lost the power to associate the words he has heard with their proper

ideas, he is also unable to do this with written words, although he may be able to see as well as a person in the normal condition.* In this, and in many another connection, the case of Lordat has acquired much interest and celebrity. Lordat, who was himself professor of medicine, suffered several months from aphasia, and afterwards explained in detail the condition in which he found himself during this period of illness.

"In the same way that the understanding for spoken and written words can be lost, so can the power of comprehension of figures. An accountant was able to read the number 766 figure for figure, but did not know what it meant that the figure 7 stood before the two 6's. So the understanding of written musical notes can be lost, although the patient be still able to play well by ear.

* * *

"In a second form of aphasia it is impossible for the patient to clothe the results of his thoughts in words [mentioned above under (4)], whether it be to utter the same or to put them in writing. In most cases of this kind the word is simply forgotten. If it be told the patient, he can repeat it and even write it, but immediately forgets it again. By reason of the last circumstance this form of aphasia is easily distinguishable from that first mentioned.

"It is striking that at times only single words or only nouns, very frequently names, disappear from the memory and are not again to be acquired. It also comes to pass that only parts of words are forgotten.

"Thus, Graves tells of a case, where a man, sixty-five years of age, after an apoplectic fit forgot all the proper names and substantives he knew but still recollected their initial letters. He accordingly compiled an alphabetically arranged dictionary of the substantives necessary for purposes of ordinary intercourse, and whenever in conversation an object occurred to him that he wanted to speak about he looked it up in his dictionary. If he wanted to say Cow for instance, he looked up his word under C. So long as he saw the printed name with his eye he could speak it, a moment afterwards he would be unable to do so.

"The extent to which the impairment may be modified and limited in the field of language, appears from a case of Lasègue, who came across a musician who was totally aphasic and agraphic, but could take down in notes a tune that he had heard.

"A third form of aphasia is characterized by the circumstance that the patient is able to clothe his thoughts in words but is not able to bring about the central innervations necessary to the utterance of the same [referred to above as process (5)]. That the pa-

*This case is from Schmidt (Allgemeine Zeitschrift für Psychiatrie, XXVII, p. 304, 1871); cited from Kussmaul's *Störungen der Sprache*, p. 176, Leipzig, 1877—a work to be recommended to all who are interested in the present state of knowledge upon this subject.

† This word denotes a disturbance of speech in which, instead of the words that fit the sense, other, improper words, or wholly meaningless combinations of words, are employed.

* Yet cases are known, as mentioned above, in which a paralysis of speech is not connected with a paralysis of writing or making oneself understood by signs. For an instance of aphasia not accompanied by agraphia see next page the case of the young clerk.

tients execute mental operations and also clothe the results of the same in words, appears with certainty from the fact that they are able to write them down. On the other hand they are also unable to repeat words spoken to them, and in their efforts to do this they show that the different parts of the mouth are able to execute voluntary movements—they distort their mouth and twist the tongue about, but produce only inarticulate sounds.

"A vigorous young clerk in an attack of unconsciousness had lost completely the power of speech; no other pathological symptoms appearing. He executed with facility all movements of tongue and lips. As his duties were such that they could be attended to with the pen, he kept his position. He gave his physician a carefully prepared account of his affliction."

"With these patients it is not a question of inability to find the innervations for certain letters as such, but the difficulty is with the *words*, which they are powerless to form. That this is true will appear from the fact that many patients with whom a remnant of speech has still remained (and who, therefore, are still able to utter single words, or it may be mutilated words), although they have the power to speak a word yet cannot speak that word when a syllable has been left out or the order of the syllables changed, nor enunciate a syllable when the order of the letters has been changed; for instance, if a patient can pronounce only the syllable *tan*, he is in that case unable to say *nat*. Secondly, this will appear from the fact, that a patient who has command of a few words will be able to pronounce a certain letter in one word and not in another.

"The following case of a patient Le Long—taken from Broca—will serve as an illustration of the condition last described as well as of cases of incomplete aphasia. 'Le Long had command of only five words, which he would add by way of supplement to the expressive gestures he usually employed; they were *oui*, *non*, *trois* (for *trois*), *toujours*, and *Le Lo* (for Le Long)—three complete words, accordingly, and two mutilated ones. With his *oui* he expressed affirmation, with *non* negation; with *trois* he expressed numerical concepts of all degrees, being able to indicate by a dexterous employment of his fingers the number he had in mind; with *Le Lo* he denoted himself; *toujours* he used when he was unable to express his thoughts by the aid of the other words he commanded. Le Long pronounced the *r* in *toujours* correctly, but omitted it in *trois*, as children do that have not yet overcome the difficulty of uniting the *r* with the preceding *t*; he had lost beyond recall this knack of articulation. The nasal sound that he articulated in *non* he could not give to the last letters of his own name.'

"It is also a remarkable phenomenon, that patients who ordinarily have command of only a few words,

in moments of excitement bring out and perfectly articulate more, and sometimes even ejaculate a very long oath. Jackson reports, that aphasic patients who are unable to answer 'No' to ordinary questions, suddenly find the power of utterance of this negation when aroused to it by ridiculous questions—as 'if they are a hundred years old.'

"The processes that we have spoken of up to this point, the disturbances of which lead to aphasia proper, take place in the cortex. If the conduction towards the muscles of the innervations properly induced in the cortex is impaired, the power of speech is also naturally affected; the language of the patient becomes forced, letters are omitted, the patient stutters, lisps, and at last becomes completely unintelligible; yet this is not a case of aphasia. [This is paralysis of speech.] These disturbances of the paths of conduction may be effected in the medullary matter of the cerebral hemispheres; most frequently, however, they must be sought in the nerve-nuclei of the medulla oblongata, especially in the nucleus of the hypoglossus as well as in that of the facialis accessorius and of the vago-accessorius.

"As regards now the localization of the functions of speech in the cortex, this is a question that has been so frequently discussed during the past few decades, that it is impossible in this place to give a complete presentation of the views and arguments that have been held and propounded for and against the same. We must confine ourselves to a review of the results that may be derived with certainty from the experiments of pathologists.

"The view at present held with regard to the position and extent of the cortical province of speech, is based upon innumerable data derived from dissections of the brains of aphasic patients. It has gradually arisen through the comparison and co-operative completion of the experiments of various investigators.

"The first after Gall to assign to language a province in the brain was Bouillaud, whose theories were based upon observations and the data of dissection: Bouillaud fixed the seat of articulation of words in the frontal lobes. He did not succeed however, despite a struggle continued through many years, in establishing this idea, manifestly in consequence of the miscredit that it awakened by reason of its similarity to Gall's views. This was also the fortune of M. Dax and of his son G. Dax, who endeavored to prove by the help of a rich collection of pathological cases, that disturbances of speech regularly occur upon lesions of the left hemisphere but not upon lesions of the right. A reversion of the general opinion set in when, in the year 1861, Broca, originally an opponent of Bouillaud, adopted the doctrines of the latter in all their principal

points, and more accurately fixed them by affirming that it was the gyrus frontalis inferior sinister which must remain unimpaired if the power of speech is to be retained. The circumstance that it is the left hemisphere in whose province the special function of language belongs, he later brought into connection with the fact, that people as a rule employ this hemisphere more as well for mechanical operations as in writing, all of which is done by preference with the right hand.

"From that time on, the doctrine of the localization of the function of speech became almost generally accepted, and the only question then before scientists was, to determine with greater precision, by means of new and thoroughly examined cases, the territorial limits of this function, its individual deviations, and the conditions of preference of the left hemisphere.

"The posterior part of the gyrus frontalis inferior sinister and the island of Reil of the left side, must be regarded as the actual cortical province of speech: it is exceptional that lesions of these parts do not produce disturbances of speech. On the other hand, disturbances of speech sometimes occur even when the lesion does not affect either of these two cortical regions. But in these cases the lesions are almost always in the adjacent portions of the cortex. It is manifest that, in such exceptional cases, we have to do with important individual deviations, and that the cortical province, as it must be inferred for other reasons, is not the same in all persons.

"There is a very great number of cases which sufficiently demonstrate the part played by the left inferior convolution; I shall cite here but a very striking one, reported by Simon. By a fall from a horse, as was found out from a section afterwards made, a man had driven a splinter of bone from the roof of the skull into the convolution in question. No other injury to the skull was discoverable. The man had arisen immediately after his fall, and was about to mount his horse again, when a physician who accompanied him asked that he submit to an examination. No symptoms of disease whatsoever, except speechlessness, were noticeable. He was able to communicate, however, by signs. He died later in consequence of inflammatory affections which followed the injury to the brain.

"According to statistics compiled by Lohmeyer, in every fifty-three cases of aphasia there are about thirty-four in which the left inferior frontal convolution is either alone the actual seat of disease or somehow stands in connection with it.

* * *

"The remarkable fact that in the production of speech the left hemisphere is so much more directly engaged than the right, is firmly established: Séguin calculated, from a collection of two hundred and sixty

reports of cases of this type, that the number of instances in which aphasia arises from lesion on the left side, stands in proportion to the number of those in which impairments occur on the right side, as 14.3:1; with reference to which it must be remarked that—as has been shown by other calculations—no deception is here caused by the possible circumstance that in general more injuries occur on the left side than on the right.

"This fact, which does not wholly agree with the ideas that we are accustomed to entertain of the cortical functions in general, we must accept as such, and seek only an incomplete analogy in the circumstance referred to by Broca, that our left hemisphere must be more skillful and more practiced in the execution of mechanical operations than the right. An incomplete analogy, we say, by reason of the fact that the direct innervations of the right hand are effected unilaterally by the left hemisphere, the innervations of the muscles of speech, on the other hand, take place bilaterally.

"But to a certain extent the analogy holds. If as the result of early lesions, or from birth, the motory cortical province of the right arm is lacking, the individuals thus affected train the left arm—that is the right hemisphere—to perform mechanical tasks. Cases to this effect have been reported by Moneau, Kussmaul, and others. The same, we must presume, holds good of language. Also in two cases on record, the disturbance of the cortical province of speech dated from childhood; and the fact that notwithstanding this these people could speak well, is undoubtedly only to be interpreted in the following way, that the island, the lowest frontal convolution, etc. of the right hemisphere had taken charge of the functions of language.

"In this connection a case reported by Schwarz is of interest. In a well-developed three-year old girl, during convalescence from measles, speechlessness with partial paralysis of the right arm suddenly set in. The lesion accordingly lay in the left hemisphere. The condition of the patient improved, yet the girl had to learn to talk again from the very beginning, and in so doing acted like the normal child that is learning to speak.

"The left side, accordingly, does not exercise the exclusive prerogative of the superintendence of speech.

"The analogy is still further applicable. It appears that so-called left-handed individuals, who as contrasted with the majority of men have trained their right and not their left hemisphere to perform mechanical work, also employ their right hemisphere in speech. Pye Smith, Jackson, and John Ogle, Mongiè, Russel, and Wm. Ogle have observed cases that appear to substantiate this. Left-handed people, namely, had become aphasic through lesions on the right side

of the brain, and—a fact which proves more—where in a collection which Wm. Ogle made of 'one hundred cases of aphasia there were three left-handed men, in the case of each the lesion affected the right hemisphere.' P. C.

THE MOHONK CONFERENCE AND THE EDUCATION OF THE NEGROES.

BY MRS. EDNAH D. CHENEY.

THE Mohonk Conference to consider the Education of the Negro Race in our country, was an occasion of sufficient novelty and importance to deserve more than the passing notice of the daily papers.

Two brothers, Messrs. Albert and Alfred Smiley, formerly having charge of the celebrated Friends' School in Providence, a few years ago bought a large tract of land in Ulster Co., N. Y., on which they have established two hotels which they have conducted according to their own ideas of propriety. With no sale of intoxicating drinks, allowing neither card playing, dancing, nor driving on Sunday, it was predicted that the attempt would be a failure. But so admirable has been the business management, and so welcome its quiet and order even to those who do not share their host's scruples as to amusements, that the house has been well filled for several summers. Mr. Smiley was formerly a Commissioner of Indian affairs, and he has for some years held a conference on this subject in the autumn. Believing that these meetings were productive of good, he planned to hold a conference in the early summer, and from a suggestion of Ex-President Hayes, he selected the Negro Problem as the subject to be considered.

Invitations were sent to hundreds of men and women in all parts of the Union, who had shown an interest in the welfare of the negro. Many Southerners were invited, but few came. There were however, several gentlemen of southern birth and education, who spoke well for their section of the country, and represented the finest traits of the society founded on slavery which has passed away.

Ex-President Hayes consented to preside.

No Sectarian lines were followed in the invitations, but it necessarily resulted from the sentiments and church relations of the host, and also from the fact that the Evangelical associations have done so much missionary work among the negroes, that the general tone of the meeting was decidedly evangelical, using the word in its common meaning. A few Unitarians from Boston represented another phase of religious thought, but from a feeling of courtesy they gave little expression to their dissent from the religious views generally prevalent in the conference. Without attempting to report the speeches made, which were almost all interesting, I shall try to give an idea of the current of thought in the meeting.

Many claimed that while slavery was an evil, and its abolition a blessing, it had been an instrument in the hands of Providence to bring the savage African here and educate him to labor and Christianity—Mr. Mayo said: "the only blessing the Negro had got out of slavery, was the ability to work." Reports of the work done in industrial schools were given by Gen'l Armstrong, Miss Smiley, Miss Austin, and others, and great stress was laid upon the importance of these schools in teaching the Negro order and skill in handicrafts. Miss Botume and others thought technical teaching of less value than the practical lessons of life, and Judge Tourjee thought Negroes had had a pretty long spell of compulsory education in labor, and that they were already superior to those about them in most mechanical trades. All bore witness to the wonderful progress which the colored people had made in their twenty-five years from slavery—greater than was ever known before—to their skill in many forms of labor, to the gradual im-

provement in their mode of life, and to their advance in morality. They were said to be gaining land and houses of their own in greater numbers than the poor whites. The evils of the credit system among the farmers were vividly portrayed. A class of small traders furnish goods to the farmer on credit, taking a lien upon his crop. The charge for stores is usually just about equal to the amount of the crop, leaving the farmer nothing for his year's labor, but a bare subsistence. It was thought by all that this system should, if possible, be broken up, and that in order to encourage the people to thrift, postal savings institutions should be established by the American government, so that the smallest sums could be laid by with safety, and interest be received when they amounted to a sufficient sum.

Very much was said about the importance of improving the homes of the people and the necessity of educating women to regulate them intelligently. Many considered the one room cabin to be a great obstacle in the progress of pure morality. The subject of mixture of races was slightly touched upon, and it was stated that sexual union between the races was less common than formerly. One speaker while giving no opinion as to the probability or desirability of future amalgamation of the races, thought all laws forbidding such marriages ought to be done away with, as it was far more conducive to morality to have legal unions than illegal ones.

The religious condition of the colored people was much discussed and abundant proof offered of the great amount of superstition existing among them, and also of the pernicious influence of many of the uneducated and often immoral preachers who gain popularity by a rude eloquence which ministers to their love of excitement. Others thought that in spite of this superficial love of excitement there was a deep undercurrent of true religious feeling in the Negro, and that the great aim should be to lead him to the religion of practical life and duty. One speaker said the old white minister was as bad as the black, and spoke of the large number who had been tried for crime. The prejudice against color was spoken of, many claiming that it was more violent in the North than in the South. It was said that it is the great hindrance to mutual good feeling between the races. Some thought it impossible to allow the union of colored and white children in the same schools—that it would only increase the animosity between them, while others believed that the result of such union in the South as in the North would lead to respect and affection.

The subject of national aid to the states having large illiterate population was brought forward, but did not receive the full discussion which its importance deserved. Yet it was evident that much difference of opinion existed. The majority believed it to be the right and duty of the national government to prevent the evils of illiterate citizenship, although many considered the Blair Bill just defeated in the Senate to be unjust in its provisions. The general subject of education was well considered, especially in the able addresses of Wm. T. Harris, Commissioner of Education, and of Mr. A. D. Mayo. Among the most striking speeches were those of Judge Tourjee, who expressed his views clearly and strongly, and of Dr. Hall of Brooklyn, who made a noble plea for the equality of the Negro—illustrated by many vivid pictures of his religious and social life.

The old plea was heard that this was a question belonging to the South and it should be left to Southern (white) men to settle it, but it was answered that it would not depend on the wish or will of Northern or Southern men what the future of this race will be, but upon the Negroes themselves, who are steadily rising, and who hold their destinies in their own hands. White men may help or may hinder them, but they cannot ultimately prevent their taking any position in life to which their own ability and character entitle them. Gen. Armstrong and others had well shown that the formation of character is to be the salvation of the Negro.

The courtesy due to a private house and invited company, prevented that full and sharp discussion of these questions, which brings out the truth in bold, strong lines, yet it helped to an attitude of mutual good-will which enabled us to look upon the views of those who differed from us more favorably than we might have done without this restraint. Certainly the good feeling of all was very apparent, and a disposition to try to look from each other's standpoint as much as possible. "Nothing of the dead but good" is hardly to be said of slavery yet, but thank God, it is *so* dead, that we can begin to look for whatever mitigated its evils and made the life of its victims endurable. It is to the credit of human nature that under a system so atrocious, and whose influence was so fearful upon both master and slave, there yet were joined so many relations of affection and respect, and traits of heroism and devotion that appeal to all that is generous in our natures. The literary and artistic power which is now revealing itself in both races at the South, will have ample scope in preserving for us the romantic and significant features of this form of society which is so rapidly passing away.

It was very good to be at the conference and all felt very grateful to Mr. Smiley for calling so goodly a company together. The whole tone of remark was brave and hopeful, and left us feeling very thankful for all the good work doing for this most important cause, but sure that the time had not come for us to slacken our efforts in behalf of the Negro, since every help now when he is putting forth his own strength is of double value. No colored man was present at the conference. Mr. Smiley's own judgment in regard to this point is to be respected, but we hope that the time will come when we shall make no question in regard to it but the true, noble men of all races who are working for humanity will meet in cordial and helpful association.

A full report of the speeches, discussions, and resolutions of the conference will soon be published in pamphlet form. We hope it will be widely circulated and read.

A REVIEWER'S VIEW OF DOGMATISM.

IN ANSWER TO CRITICISMS OF FUNDAMENTAL PROBLEMS.

HONESTY is a great virtue, and a reviewer who confesses that he has not studied the book he reviews and condemns, must be admired for his honesty. It is a pity that that is all that can be said in favor of a review of *Fundamental Problems* by Mr. John Owen, published in *The Academy* of London. Mr. Owen says:

"The author is kind enough to spare both reader and reviewer the task of reading the whole of his book, by presenting them with a syllabus of its conclusions. Thus he tells us: 'The philosophy which *'The Fundamental Problems'* present is Monism. Monism holds that all existence is One. . . . The author objects to Supernaturalism as well as Agnosticism. The method of his philosophy is a systematic arrangement of knowledge. . . . After this authoritative exposition little remains to be added. The book consists of a series of essays which appeared in a Chicago publication called *The Open Court*. . . . The 'court' is 'open' only to one species of philosophy, and its judgments are as dictatorial and *ex cathedra* as if they emanated from an infallible Pope."

The quotation which Mr. Owen makes is not a quotation from *Fundamental Problems*, but from the publisher's slip which, as is customary in America, is sent with copies for review for the benefit of reviewers. The notes on the slip were neither made by me nor had I the opportunity of revising them, for they were made during my absence. How bad I feel that I cannot even accept this little bit of praise—as to having been "kind enough"—which my critic so grudgingly gives me!

Mr. John Owen reviews *Fundamental Problems* together with Mr. S. Laing's *Problems of the Future*. He says:

"'Problems' are either questions 'set' in order to be answered, or questions which, after discussion, are declared to be, for the time being, unanswerable. In one sense they may have the significance of dogmas, in the other of open questions. Each of these meanings is represented by the works above named."

After having reviewed Mr. S. Laing's book, he turns to *Fundamental Problems* and declares:

"Here are problems which as I have hinted are in reality dogmas."

Now in my mind the whole purpose of problems is to be solved. Problems answered are "solutions" and not "dogmas." Dogmas are unfounded assertions. Does Mr. Owen wish me to waste time, paper, and print in discussing problems that for the time being are unanswerable. What is the use of writing and what is the use of reading about unanswerable problems? Every book written ought to be a contribution toward an answer of some problem, even if the result be negative, showing that a solution has not been gained by this or that method. Mr. Laing has the misfortune to be praised by Mr. Owen for his "cautious and undogmatic tone." Dogmas being "problems answered" Mr. Owen declares that Mr. Laing contributes nothing to an elucidation or solution of the problems of the future.

It is strange that those men who are dogmatic themselves are most prone to reproach others for their own fault. The elephant and the tiger once got into a dispute, and when both had exhausted their vocabularies of names, the elephant said: "You are the most thick-skinned creature I ever met with," and the tiger answered: "You are the most cruel, rapacious, and bloodthirsty beast upon earth." There is a moral in that fable for Mr. Owen.

How glad I would have been if Mr. John Owen had pointed out the fallacies of my reasoning—mainly in the chapter "Form and Formal Thought," which is the basis of the whole work. If my reasoning has a flaw in it, it must lie there, and from there it will wind, and be traceable like a red tape, through all the other chapters. The chapter "Form and Formal Thought" attempts to lead philosophy into a new phase of development, in so far as it is intended to be a conciliation between Mr. John Stuart Mill's empiricism and Kant's transcendentalism. The problem of the *a priori* lies at the bottom of all problems, be they philosophical, scientific, or ethical. How is it that we can know beforehand that twice two will always be four? It is this problem which Mr. Mill failed to solve. Kant solved it, or rather pointed out the method of its solution. Yet Kant's solution is so overgrown with thoughts of a later period, that the student of Kant is more mystified than benefitted by it.

Has Mr. Owen any idea of the importance that attaches to the solution of this problem? I doubt it very much. For if he had, he would not have disappointed me by his empty declamations.

I mind neither hostility nor animosity nor sarcasm in a critic, if he be but a real critic—a man that points out fallacies, errors, and defects. If a reviewer is a critic, he will be instructive, and I shall gladly avail myself of my opportunity to learn from him. Criticisms are intellectual food; they make our minds grow. If criticisms show us defects, they help us in mending them, and thus we gain a broader insight into, and a more correct conception of, the truth. Every word that can teach us must be welcome, and if our friends are too kind to point out our deficiencies, we must go to our enemies. They will tell us the truth, they will not conceal those things which, as they suppose, are to be blamed.

I feel grateful to every one of my many critics.* I have studied their criticisms carefully and tried to learn from them. I have been able to learn from them even though they did not convert me to their views. If there is anything to be learned from Mr. Owen, it is this: Supposing that dogmas are, as he maintains, problems answered, what can we do better than strive with might and main to become dogmatic. But let us avoid mere assertions in which Mr. Owen indulges, let our dogmas be simply statements of fact, and they will be the most useful and valuable possessions of the human mind.

P. C.

* Up to date I have received one hundred and five reviews and notices of *Fundamental Problems*.

CURRENT TOPICS.

A REMARKABLE evidence of public spirit is the effort of the people of Minneapolis to assist the census takers. It appears from the papers that hundreds of citizens turned out as volunteers in their determination to "number the people." This display of civic zeal was prompted by local pride and a neighborly ambition to outnumber the people of St. Paul. A vigorous effort by the census enumerators, aided by three or four thousand volunteers, ought to give Minneapolis a half a million people; otherwise the labor will be lost. This reminds us of the struggle in 1870 between St. Louis and Chicago, resulting in a victory for St. Louis by a small majority. Fortunately for that city the United States Marshal was a resident of the town. This of itself ought not to have thrown any suspicion on the "returns," but the citizens of St. Louis in grateful appreciation of the figures gave the marshal a banquet and presented him with a service of silver, as a reward for his victory over Chicago. This raised an unpleasant suspicion that "repeating" had been done; for if the figures were correct, and the marshal had merely done his duty in the count, why should he be rewarded with a solid silver tea-service? It costs a very great sum of money to take the census, and the returns ought to be above suspicion. A melancholy postscript informs us that several "enumerators" at Minneapolis are likely to go to jail for crooked arithmetic, and superserviceable zeal.

The title "Africanus" formerly given to Scipio for his victories over the Carthaginians, has been conferred upon Stanley, a greater conqueror than Scipio. The victories of Stanley in his chosen field of action, have been greater than those achieved by any other man since the days of Christopher Columbus. A few years ago he was a newspaper man in America; he now patronizes kings. He is about to be married; and the gossip about the approaching wedding exhibits a striking contrast between masculine and feminine fame. With feelings of awe we read the important announcement sent over from England that Miss Tennant "has acquired a distinct fame in London for the quiet elegance of her gowns, and the number and variety of her parasols." The addition of this fame to the fame of Stanley makes a glory too dazzling for human eyes. The gossip who sent the information over is entitled to some praise for giving back to us the descriptive, modest, and musical word "gown," now almost obsolete. He forfeits his credit mark, however, when he tells us that Miss Tennant's brother "will probably appear at the altar of Hymen at the same time as his sister." By that exuberant figure of speech he meant to say that Miss Tennant's brother was to be married.

The ethics of the caucus was patriotically shown in the efforts of rival partisans to nominate a man for Congress in the Fourth District of Illinois. There were only two candidates, and the contest was close. Actuated by mutual ill-will, the two republican organs of Chicago took opposite sides, and each opposed the candidate supported by the other. The effect of their discordant efforts, if they spoke the truth, was a demonstration that neither of the candidates was morally or mentally fit for the place. The "workers" on either side, employed a couple of weeks very profitably in proving that their man ought to be in Congress and the other man in prison. When the convention met, the delegates resolved themselves into an uproarious mutual admiration society, the partisans of each candidate vigorously denouncing the other. One of the delegates enthusiastically advocated the claims of the present incumbent in a speech asserting the unfitness of the rival aspirant by reason of political incapacity, and various other accomplishments, ranging all the way from pitch and toss to manslaughter. This was well enough, but he wound up his Phillipic by declaring that if the unspeakable pretender he had exposed in

the convention should receive the nomination, he would give him a loyal and cordial support. More wonderful than that was the editorial action of the paper which for several days had been filled with reasons why the present incumbent ought not to be renominated. The next morning after the nomination had been made, it contained an editorial article showing his eminent fitness for the position, and advising everybody to vote for him. The most humorous performance however, in this absurd comedy, was the speech of the winning man, congratulating the rival combatants on the "gentlemanly" contest through which they had lately passed. This apparent self-stultification is merely the effect of party discipline. These are the tactics adopted by both parties wherever they are in the majority, and thus they keep the ranks from breaking in the presence of "the common enemy." Most wonderful of all is the fact that those partisans figure in the census returns as free moral agents.

The acquittal of the men charged with conspiracy in hiring "repeaters" at the polls, and to commit various other election frauds, appears at first sight like a miscarriage of justice, but any citizen who has carefully read the details of the trial must have come to the conclusion that a conviction would have been a miscarriage of justice also. The tactics of the prosecution were unfair from the beginning to the end. They were in derogation of the law of trial by jury, and a perversion of its purposes. The practice of arresting a company of men under a vague accusation of "conspiracy," throwing them into jail, and then subjecting them to torture and temptation until some of them "squeal," is vicious as it is illegal. The harsh refusal to give to men on trial for felony a bill of particulars of the acts constituting the crime; the springing of sudden testimony upon them, the raking up of old misdeeds atoned for and forgotten, the offering to the jury the official belief of the State's attorney that the prisoners are guilty, and other police court practices, cause humane and thoughtful men to hope for a verdict of acquittal, in order that such methods may be rebuked. Better is it that a criminal go unpunished than that the law be broken in his trial. If a guilty man be convicted by guilty means, that is a miscarriage of justice.

The "word-painting" of reporters is usually a defacement of the language, and a blemish on its beauty, but occasionally it bears the mark of genius, as for instance in the following description of a man recently arrested in Chicago for complicity in the business of pool selling. He is described as an "ex-prizefighter, and professional bad man." This is not only description, but it is descriptive poetry. Carlyle himself, working at his literary forge, could hardly hammer out anything more symmetrical and strong. We have plenty of professional good men; they are in fact something of a drug in the market. There has never been a scarcity of them; they were numerous in Jerusalem long ago, where they had a habit of making long prayers and devouring widows' houses; but a professional bad man is a novelty, and surely the trade of "bad man" seems admirably adapted to the genius and education of an ex-prizefighter.

The particular "bad man" mentioned above appears to have well deserved the title, judging from a murderous remark he made to the officers who arrested him: "it's a lucky thing for you ducks that I was sober. If I was drinking you bet you wouldn't get me alive." The absence of the customary drunk was the only obstacle that lay between him and murder. Instead of blessing himself for his lucky escape from a great crime, he deplored his hard fortune that now when an opportunity had presented itself to kill a man, he must be unfortunately sober, and without the nerve that whiskey gives to do the deed. What a worthy tribute was this to the infernal bravery of rum! Its potent inspiration was absent in this

case and therefore murder was not done. Not even a professional bad man could "screw his courage to the sticking point" without the propelling power of whiskey.

M. M. TRUMBULL.

CORRESPONDENCE.

THE NEGRO'S APPRECIATION OF THE SUFFRAGE.

To the Editor of *The Open Court* :—

MR. WAKE in his paper on "The Race Question" in *The Open Court*, No. 148, says that if my statement on page 2134 of *The Open Court* be true,—viz., that laboring colored men in Florida "walk miles to the office of registration to insure the exercise of the ballot,"—the fact shows they appreciate the privilege of voting.

Some facts concerning the statement are these, which perhaps should have been given with it.

Our home was in the centre of a sparse settlement, and at a distance of three miles and a half south-west of "Singleton's Mill," which was the locality of the office of registration and the polling place for our "precinct." Those in the settlements to the south and west of us had of course an increased distance to go on registration and voting days. One day at noon I was at our avenue gate, and a gang of colored men from beyond us passed me on foot at a vigorous pace. I knew them as laborers on places a mile or more to the south. From their air of earnestness, I inquired what was up, expecting to hear that some calamity had befallen the settlement,—a wild fire in the woods, or something of the sort, and that they were going to help in the trouble. "We're going to register," was the reply.

Every mile of travel in Florida sand and wire grass counts for two on northern highways. These men were taking a seven or eight mile (Florida miles) walk in the noon heat, which was a two hours' trip with a good horse and wagon, besides losing their earnings for the time spent. This occurrence was not a solitary one, for I never heard, during my years in the state, of a colored American selling his vote, or of his neglecting to vote. Such occurrences might have been, but if so, they certainly were not told of, as is so frequently told of northern voters.

Other instances connected with colored suffrage in Florida, impressed me quite as much as this of the company of laborers going to register.

MARY GUNNING.

NO RESPONSIBILITY, IN A RELIGIOUS SENSE.

To the Editor of *The Open Court* :—

FROM the rationalistic standpoint it is an infringement upon reason to use such a contradiction of terms as law and freedom. If we are under a dispensation of law, we are not under one of freedom. Right reason can never prevail by such confusion. Science has nothing to do with the Calvinistic way of reasoning; by it (science) the human mind must not be left in a strait betwixt two. The right premise once obtained, confusion ceases. This age demands a right premise in order to arrive at right conclusions. That premise cannot logically be law and freedom. Science cannot afford to pose before the intelligence of this nineteenth century as ridiculously as religion did in the late Presbyterian assembly; cannot afford to arrive at its conclusions by majority vote. It will not do either to take Epictetus, Schiller, and all ethical teachers as an authority to show that man is free and therefore responsible. All authority must have its root in natural law, not in human assumptions. The credential of gravity is in the falling of a stone and the credential of human freedom would be in showing that human actions are not subject to law. Two journals are running in a mill. Both are subject to the laws, or conditions of bearing, box, and motive power. One runs without undue friction, the other does not. Here is exemplified your

slave and your artist; the first works under a combination which produces friction, but the latter, under one which produces harmony; but both are subject to law. Now if a journal gets hot by undue friction we do not stop it and use means to cool it off because it was free, but because, for the safety of the mill, it would not do to let it continue to run by the dangerous laws or conditions which governed it. So it is with vicious men: nature, by its adjuncts, does not oppose the criminally inclined because they are free, but because they are not fit to express themselves as the laws of their organizations would force them. Accountability from the standpoint of nature is simply what a break is to a wheel. By the operation of natural law in a circle we are forced to deal with things that are not as though they were. Poets, theologians, and ethical teachers reasoned from a premise which was assumed by Pagans. They had to conclude therefore that man was free and that he ought to be held responsible both in this world and the next, and through fear justified a God and condemned man. But by the light of natural law and reason let me be found standing in defence of man. This I say, then: there is no such thing as law and freedom, but there is law; and harmony and inharmony to man under law. There are opposing forces to vicious actions, but no responsibility in the sense of religion.

JOHN MADDOCK.

BOOK REVIEWS.

L'Eredità delle Lesioni Traumatiche, e dei Caratteri Acquisiti dall'Individuo. Studi ed Esperienze. By Paolo Mantegazza. From "Archivio per l'Antropologia e la Etnologia." Vol. XIX. Fasc. 3.

IN the past more attention has been paid to vast accumulations of curious isolated facts, than to a careful observation of the same; and hence into the annals of heredity there have crept a great many incorrect and exaggerated opinions. At the present day, however, the study of heredity is deeply engaging the attention of biologists and of natural scientists, and is being submitted to a strictly scientific treatment. Through its manifold relations to general morphology, to the variable or immutable characteristics of the species, heredity, incontestably, constitutes a predominant fact in biology. No one can legitimately profess to be a follower or antagonist of Darwin, without possessing a clear notion of the power of individuals to transmit to their progeny their own permanent or acquired characteristics. If after the lapse of so many years, and so many able works, written upon the subject, we still evince so much incertitude in tracing the precise limits of the mutability of the species, it is simply because our opinions rest upon the ever-shifting ground of facts that are well-authenticated only to some, but highly problematic to others. To help to consolidate this uncertain and unsatisfactory basis is the principal aim of Prof. Mantegazza's monograph.

Lamarck was the first who carried the problem of heredity and of the mutability of the species into the domain of natural science. To him any individual, changing its surroundings, is compelled to modify itself, increasing or diminishing by alternate turns the evolution of a given organ. It is further able to transmit to its progeny these new characteristics that are the result of a struggle and of a victory over external conditions. If the progeny remains in the same locality, through successive generations it will be able to consolidate the newly acquired characteristics, until their sum reach a maximum, compatible with the capacity of the histological elements. This, substantially, furnished the seed from which arose the great tree of Darwinism, with all the branches and ramifications of the evolutionary theory.

But, we have to keep constantly in view the incontestable fact, that it is impossible to be evolutionists without admitting that the

* "The Heredity of Traumatic Lesions. And concerning acquired individual characteristics: Studies and experiments."

characteristics acquired by the individual are transmitted through heredity to successive generations. We may disagree in regard to the *quantum* of this transmission, but if we could prove that this heredity did not take place, the theory of evolution would lose its centre of gravity.

Prof. Mantegazza limits himself to the study of one or two striking phases of the question; namely, the *heredity of traumatic lesions*, on the present occasion suggested by Dr. Aug. Weismann's masterly treatise upon the subject (*Ueber die Hypothese einer Vererbung von Verletzungen, etc.*, Jena, 1889). If upon the mutilation of an organ not indispensable to life we find that the offspring of the animal is born with the same mutilation, we would no longer be able to doubt the heredity of acquired individual characteristics, and the experiments of the laboratory would admirably seem to confirm our observation of the facts of nature. The joint experiments of Dr. Weismann and Prof. Mantegazza, however, are by no means favorable to the theory of the supposed heredity of traumatic lesions, although the variant facts furnished by these experiments may not be regarded as absolutely conclusive. Still, to deny the heredity of traumatic lesions is not to deny the transmission of characteristics acquired by the individual, through the influence of external agents.

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THEODORE PARKER. A Lecture. By Samuel Johnson. Edited by John H. Clifford and Horace L. Traubel. Chicago: Charles H. Kerr & Co. 77 pp. Price \$1.00.

The editors have brought together in this tastefully bound volume the substance of a lecture which Mr. Johnson had written on Theodore Parker and which he had subjected to many revisions. Few may be regarded as so well qualified as Mr. Johnson to portray the tendencies of the great religious movement of which Theodore Parker was the leader; and additional value attaches to the work from the fact that it is not wholly eulogy, but also an estimate. Parker, Mr. Johnson says, is the prophet, the fore-runner of that great future religion which shall be intellectually and spiritually broad, deep, and earnest enough to lift all our present secular interests, our materialistic passions and desires to an ideal purpose.

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BOOK NOTICES, NOTES, ETC.

Gen. M. M. Trumbull contributes to the July *Belford's* an article on the Chartist Movement in England; and Dr. Felix L. Oswald, an essay on Storms and Earthquakes.

The Vedantin, of Saidapet, Madras, is a little monthly magazine devoted to the exposition of the Advaita Doctrine. The translations from the religious works as well as the contributions appearing in this magazine, contain many noble thoughts.

"Christ: A Comparative Study," author's name not given (Brentano's, 15 cents), is a thirty-one paged pamphlet written to point out the close resemblance between Buddhism and Christianity: it cites "parallel passages" from the books of the two religions.

The publication was announced some time ago of a new Medical Dictionary by Dr. George M. Gould. By its compactness, size, and the incorporation of all new technical terms, it will recommend itself to all practitioners and students. (P. Blakiston, Son, & Co., Philadelphia. Price, \$3.25.)

The *Preussische Jahrbücher*, a Prussian periodical of very high standing, publishes in Vol. 65, No. 6, an article on the Schools of the United States, by Thomas H. Jappe, Instructor in German at the schools of Des Moines, Iowa. It is instructive to contrast the readiness that Prussia has always evinced, by comparative studies, to learn from foreign countries; though, in this particular case, we fear she has little to learn from us.

The New Review for June publishes a beautiful Roumanian Soldier Ballad by 'Carmen Sylva,' the Queen of Roumania; in the same magazine an article on Hypnotism appears. (Longmans.)

Mr. M. M. Pomeroy ("Brick") has published in the "Birch Bark" Series the story of his life; written for boys and girls. (The Advance Thought Pub. Co., N. Y., 251 pp. Price, 50 cents.)

The Senior Classmen of the Missouri School of Mines have begun the publication of a new quarterly "of scientific research." Its pages will be open to contributions in Mathematics, Physics, and the exact sciences generally. We trust that it will be very effective in the dissemination of scientific thought. (*Scientia Baccalaureus*, Rolla, Mo.)

"Liberty and Life" is the title of a little book of 208 pages, by Mr. E. P. Powell, published (1889) by the Messrs. Charles H. Kerr & Co., of Chicago. It is made up of a series of attractively written discourses, expounding the new views of life that result from the acceptance of the doctrine of evolution. It is supplementary to the "Heredity of God." (Price, 75 cents.)

We are pleased to note among 'Topics of the Time' in the July *Century* a short article "On Lack of Conscience as a Means of Success." The ethical fallacy that lies at the basis of this so prevalent belief has more than once been spoken of in *The Open Court*. Says the writer in *The Century*: "One proof that the smart rogue is not so smart as he thinks, and as others think, is that he so often comes to grief. He arrives at his successes through his knowledge of the evil in men; he comes to grief through his ignorance of the good in men. He thinks he knows 'human nature,' but he only half knows it."

The first number of the *Annals of the American Academy of Political and Social Science* has appeared. It contains the following articles: "Canada and the United States," by J. G. Bourinot; "Decay of Local Government in America," by S. N. Patten; "Law of Wages and Interest," by J. B. Clark; "Province of Sociology," by F. H. Giddings; "Instruction in Public Law and Economics in Germany," by Leo S. Rowe; and "Railroad Passenger Fares in Hungary," by Jane J. Wetherell; besides a report of the proceedings of the Academy, Personal Notes, Book Reviews, and Miscellany. Though the purpose of this magazine is eminently a special one, yet the subjects discussed are of such general interest and the manner in which they are handled so popular that we have no doubt it will find a large circulation among all classes of reflective readers. This it assuredly deserves. (Am. Acad. of Political and Social Science, Station B, Philadelphia.)

We have upon our table the following pamphlets and brochures: "The Working Population of Cities, and What the Universities owe them," by M. I. Swift (Reprinted from the "Andover Review" for June, 1890); "Hell, Where is it?" and "Robert Burns, Was he a Christian?" by Saladin (London: W. Stewart & Co.); "The Power of Thought in the Production and Cure of Disease," by Dr. Wm. H. Holcombe (Chicago: Purdy Publishing Co.); "Would Nationalism Destroy Individuality?" by Charles E. Barnes (Lansing, Michigan: Robert Smith & Co.); "The History of Federal and State Aid to Higher Education in the United States," by Frank W. Blackmar, Ph. D. (Washington: Government Printing Office); "Ametropic Choroido-Retinitis (Central Choroiditis)," by George M. Gould, M. D. (Archives of Ophthalmology, Vol. xix, No. 1, 1890); "Questions for Debate in Politics and Economics, with Subjects for Essays and Terms for Definition" (New York: Society for Political Education); "Man and Humanity," by Rev. Isaac S. Moses (Milwaukee, Wis.); "Digging for Bedrock," by Moses Harman (Lucifer Publishing Co., Valley Falls, Kansas); "Proceedings of the Department of Superintendence of the National Educational Association" (Washington: Government Printing Office).

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WHAT THEN?

THE PROBLEM OF THE EXHAUSTION OF COAL.*

BY PROF. L. SOHNCKE.

I.

THE QUESTION.

WHEREVER we look about us we see on every side products of human industry in the creation of which coal has directly or indirectly played a prominent part. From coal we prepare our illuminating gas. We get our iron and other metals from ores burnt in furnaces the heat of which has been generated by coal. By it the stoves of our homes are heated. Coal is the indispensable fuel of the steam-engines whose thousand-fold applications procure us the countless conveniences of modern life. Locomotives, marine engines, transportable motors, hydraulic mining-machines, and all kinds of steam-pumps, machines employed in rolling-mills, fans, circular saws, steam-presses, and hundreds of other mechanical contrivances are dependent upon steam-power and consequently upon coal. So, too, the gas-machines so much used to-day in smaller industrial operations, owe their power to do work to coal; and thus indefinitely.

In view of this dominant position that coal occupies in our present civilization, the question appears perfectly justified as to whether the coal-supply of the earth, at least so far as human needs are concerned, is inexhaustible, or whether we must prepare ourselves for the future termination of all our present splendor. This question was raised long ago. In 1866, the English Parliament appointed a special commission for its investigation. Does not, indeed, the entire wealth of England rest substantially in its treasures of coal! The question, moreover, has been repeatedly discussed in addresses and essays, especially by Dr. Wm. Siemens; and other scientists (Grashof and Clausius) have also given the subject exhaustive consideration. The results are of deep interest.

If we measure the earth by the standard of our own body it appears gigantic. And the majority of the species of rocks of which it is composed are present in a correspondent degree: of Granite, Gneiss, Porphyry, Slate, Lime-Stone, Sand-Stone, and other

kinds of rocks, there are enormous quantities. But the case is quite different with coal. The different geological formations that in the course of millions of prehistoric years have been deposited upon the bottoms of the oceans and of inland lakes, and which, freed by slow processes of stratification from the waters that covered them, now serve the human race as a play-ground for its struggles, exhibit indeed here and there between their layers of sand, clay, and lime, occasional strata of coal. But of real importance, by reason of the great abundance in which it is found, is the coal of but one of those formations—the formation of the carboniferous era. At the time of its deposition swampy lowlands extended for immense distances along the coasts of continents and islands; broad flat swamp-areas, exposed to frequent inundations, spread out along the courses of rivers. All these low tracts were filled with turf-moors and swampy forests, which in a uniformly warm and moisture-laden atmosphere flourished in romantic luxuriance. These primitive forests and moors it is whose slowly decayed remains we see before us to-day as coal. The conditions, whether for the formation of such gigantic vegetable accumulations, or for the preservation of their carbonated remains, were never afterwards present to the same extent, and so far as human foresight can determine will never recur in the future. In all civilized states the forestry laws require that the greatest possible equilibrium shall be maintained between the consumption and the fresh growth of timber. But where such supervision is lacking [as is the case in some of the United States] man destroys much more vegetation than is spontaneously reproduced—this is true not only of the consumption of wood but also of the consumption of turf. And so it happens that accumulations of plants that could form beds of coal are at present to be found hardly anywhere.

Coal, therefore, represents for us a certain amount of capital that is not to be increased, that bears no interest, and that is by no means inexhaustible. And humanity goes on with the consumption of coal like the fortunate player that drew the grand prize in the lottery and knew no better than to squander his newly acquired fortune as quickly as possible. We, in fact, and especially since the invention of the steam-engine, are wasting in the most irresponsible manner our

* From *Himmel und Erde*, by jagge.

capital of mineral coal that we cannot replace. How long is this to last?

The answer can be given, with approximate certainty, on the basis of the condition of things in England, which have been closely studied. England belongs to the most richly endowed of civilized states in this respect; its "black counties"—South Wales, Northumberland, Durham, Lancashire, and others—are world-famous. Of the entire coal-area of Europe, more than one third lies on the British Islands. These yield almost one half of the entire coal output of the earth, which amounts annually to about three hundred million tons. Now Siemens finds, upon the basis of the investigations of the English parliamentary commission already mentioned, that the quantity of minable coal in Great Britain is estimatedly equal to one hundred and fifty thousand million tons. Of this in 1877 the annual output was about one hundred and thirty two million tons. Whence it is calculable that the coal fields of Great Britain, reckoning from today, will be exhausted in some two hundred and fifty years. This estimate may indeed not be absolutely reliable; the day of terror may be deferred for three or four hundred years: yet what are a couple of centuries in the life of humanity!

We are thus directly confronted with the fact that the coal-supply of England, and likewise that of all Europe, will be exhausted at a time not far distant. And although non-European lands still possess great stores of coal, the end awaits them also; and the question unavoidably arises—What then?

Are things really so, that it is granted to the present generation, or shall we rather say to the present generation and those that immediately follow, to rejoice in the highest fruitions of civilization, while soon thereafter humanity is to sink back into barbarism? Shall we continue frivolously and wantonly to squander the fortune that has fallen in our laps, and say: *Après nous le déluge*. Have we not also duties to fulfil towards the coming generations?

(TO BE CONCLUDED.)

IS NATIONALISM A SIN AGAINST LIBERTY?

BY T. B. WAKENAN.

"Order, the condition of liberty.

Liberty, the mother of improved order."

THERE is a widespread and profound misapprehension about the relation of Nationalism to Liberty which a little attention to the laws of sociology should remove. We read, for instance, in the *Twentieth Century*, of June 12th, Hugh O. Pentecost's opinion, which, many hope is only temporary. He says: "I admit that it (Nationalism) would distribute wealth more equitably, that it would abolish poverty, but individual liberty would be the price paid for those blessings, and they are not worth the price."

Then he goes right on and quotes, and replies very cunningly, evidently as he thinks triumphantly, thus:

"The 'Pacific Union' also objects to my foregoing paragraph. It says:

Nationalism (the control of an entire people under one governmental system) established for the benefit of the whole—to sustain the rights of the whole—is not tyrannous, nor can the most rabid Anarchist make it so appear.

It is all very well to say that, but read what follows:

What Mr. Pentecost contends for is that those who do not desire to co-operate should not be compelled to do so; if they are compelled, that is tyranny. But he seems to forget that the good of the whole is paramount to the good of the few.

There you are, you see: 'The good of the whole is paramount to the good of the few.' Is not that the time-honored maxim of majority rule, a maxim that is now used to justify policemen and prisons? Now, good friends, you might as well admit that the only difference between our present governmental tyranny and injustice and Nationalism is, that now many are ruled for the benefit of a few, while under Nationalism a few would be ruled for the benefit of many. I admit that that would be an improvement, but it would be tyranny, all the same. If not, why not?"

If these disputants would bring their difficulties and differences under the light of evolutionary sociology, would they not disappear? Let us see.

Nothing can be more important than to get down to scientific bed-rock on this subject, for we can never do anything right in social affairs, economics, or morals without that foundation. In *The Open Court* of May 29, we answered the question, "Is Nationalism a sin against Hell?" and in so doing called attention to the controlling fact that "Society is an organism," and that there is no use in discussing social questions if such fundamental facts and the laws pertinent to those subjects are to be persistently ignored. For instance, the disputants above quoted speak of "rights," and the will and wants of the individual as though all human affairs were purely voluntary or involuntary, and independent of the organism. A moment's thought will enable any one to see that this is shallow, unscientific talk. For if society is an organism, the first and main question is, What is the nature, extent, and proper limits of its organic action? When those questions are answered, and the duties they enjoin are provided for, we may begin to chatter about our "rights" and "wants."

It is the glory of Nationalism that of all the "Reforms" of our time it is not metaphysical. It proposes to actually do something practically, and on a basis that does not begin by upsetting the order and science of the world. It proposes to follow simply the evolutionary progress of that order and science intelligently, instead of being forced forward by the blind social forces of Nature with our backs instead of our faces to the dawn—a most ungraceful and unintelligent way of entering heaven, at which the angels will surely laugh!

The Nationalists scientifically turn their faces to the light in their "Declaration of Principles," thus:

"We merely seek to push (follow) this principle (co-operation) a little further, and have all industries operated in the interest of all by the *Nation*—*The People organized*—the ORGANIC UNITY of the whole *People*."

These are most important words because they are scientific. They should have admonished our disputants that we are all living in and are parts of a vast organism—an organic world, with an inevitable organic action, co-operation, *end*, and consequent "UNITY."

Now the great fact is that this organic action is as deep as the world. It includes not only the evolution and movements of the solar system, and our own "mother and nurse, the Earth," but also all of the plants, animals, and *species* which she has produced, including the great society, MANKIND, with its manifold growths, combinations, and their stages of progress. *We* stand as the outcome and apex of this mighty pyramid resting upon the stars and rising step by step through inorganic matter to the vital and then to the human and social.

Each individual is simply its last growth, the highest of all and the product of all, but thus subject to all its organic action and laws, and possessed of life, health, strength, enjoyment, happiness, and in a word, *liberty*, only as he fulfills and develops his *individuality* along the lines of growth and *least resistance*, which are those laws.

Now the first thing to be always borne in mind about these facts and laws is, that they are scientific and as we said *inevitable*. To say "that those who do not desire to co-operate should not be compelled to do so; if they are compelled that is tyranny"—is to talk, (we beg pardon) very absurd and unscientific nonsense. There is no will nor compulsion about this co-operation. It is a fact, fundamental and *organic*, not voluntary nor involuntary—whether we consider it as solar, terrestrial, material, vital, *social*, or *moral*. Our ex-Rev. friend, Mr. Hugh O. Pentecost, is indeed awful spry. He can spring from a pulpit or a system of theology with a speed that makes many, and perhaps him a little dizzy, but we challenge him and defy him to secede from the solar system! Even the great burly Jupiter could not do that. Nor more can he secede from Mother Earth and her little family of plants and animals and human society with its *organic* co-operation and social laws and moral duties. The only escape from all these is to go out of life. This organic action is the cause, creator and sustainer of every individual. The civilized individual could no more exist and live without society than the hand without the body. Like the hand the civilized individual has no existence natural or healthy except as an organ of the body which produced it. So we can exist only as we "are members one of another."

If it is said, all this is a truism—an old chestnut. We reply that this is just the trouble. Fundamental facts and laws are enduring and never to be forgotten. Our anarchistic friends talk and try to act just as though they were metaphysical individual entities having no laws, conditions, nor duties, except to flirt and dance in the infinite space of their imaginations as their sweet wills may *seem* to waft them.

Then we are asked, how about the *will* and *self*—and all that? Are we not *free*, and the result and object and finality of everything—each in, for, and to him or her *self*? Yes, for the growth, purposes, and enjoyment of the individual standing upon these laws and with constant relation, conscious or not, to the social organic *whole* of which the individual life is a *function*, or else a robber. The best illustration is to compare the function of the *will* in the body physical, and then in the body *social*. In the physical body most of the organic action which is fundamental has already become not only involuntary but unconscious. The action of the great organs, like the stomach, heart, and brain, is only thought of when diseased. Carlyle complained bitterly that his happiness was wrecked by his unfortunate discovery of his stomach. So, generally, the acts *necessary* for the system, are at first voluntary and conscious, and then, like walking, they become usual, natural, involuntary, and finally organic and *inevitable*. Thus all of the material nutritive processes and conditions go on as a matter of course, like the stomach and heart, and the *will* is chiefly occupied *consciously* with the newer and unexpected matters which confront the organism, and where the choice is the strain between motives, and is determined by the highest.

But unconsciously, organically, necessarily, and naturally, the *will* of the individual is occupied in supplying the stomach, the heart, and the brain with the materials that sustain their organic action—making life and health possible. This *organic will* is simply the co-operation of the whole system, every organ and part thereof joining in this common *consensus* for the obtaining of food and the conditions of existence necessary to the whole organism. This *consensus* of all is not voluntary nor involuntary: it is organic, natural, *inevitable*. It is not a "governmental tyranny and injustice" but the common action of all worked out by natural selection for the benefit of all. Prolonged meditation upon Æsop's fable of "The Stomach and the Limbs" ought to be imposed upon every Anarchist who complains of the "tyranny" which compels his hands and *will* to supply his stomach, or die. They must learn to apply this fable to the *body social*. The *consensus* of the people is *the will*, and government of the whole organism, in which all of the just powers are "the *consent* of the governed." To say that such

consent is a tyranny is to be guilty of an organic falsehood. To say that you wout give, join in, or have anything to do with such a "consent" is to be guilty of organic suicide. It is simply to secede from manhood and civilization—and to die—making usually a dirty nuisance of one's self, as in deaths by slow alcohol-poisoning. Darwinism, indeed, shows that in every community there will be a few rudimentary specimens of incomplete development who do not become capable of co operative civilization. These are provided for now, and will continue to be cared for in institutions in which physical and moral deficiencies will remain a warning to all, while being remedied as far as possible.

Substantially there can be no society or civilization without this co operative organic action of all its members. Every one by being born consents to this fact and condition just as he consents to the solar system. This fact is not a tyranny at all, because it is a condition of existence. We accept it by accepting civilized existence. This is the "If not, why not," to all notions, that the organic action of the social organism is a tyranny. It is not a tyranny because it is one of the conditions of existence, like the law of gravitation. It is the order of social action upon which the safety, existence, and welfare of each and all depends. To thus speak of organic laws as "tyranny all the same," is simply a theological anthropomorphism. Its history is curious. It is a cross between Rousseau and Paley. A century ago Theologs taught that a God created nature and imposed laws to which all were *made* to submit, and that the laws of the state were simply a similar imposition. The Anarchists are our theological "survivals." They still talk and act as though *law* was an imposition of authority divine or human, and therefore to be violated in order to assert and vindicate liberty!—and that law is thus simply another name for tyranny. It is a thousand pities that our "H. O. P." cannot jump off of this theological shadow. For this idea of law is wholly out of date. In the modern scientific sense, law is the reverse of tyranny. It is an observed order of phenomena or events, even in social science, as among the stars. It is the line of least resistance, and synonymous with consent and liberty. It is the line or order in which things go because they *then* go without restraint, the easiest and freest. The law and order of the world is simply the record of its freedom. In so far as we conform our lives to its order, we are free. When we conquer, as Bacon said "by this obedience," we are emancipated from restraint.

Thus says Goethe :

"Art and Nature are one,
And the law only can to us Freedom give."
("Und das Gesetz nur kann uns Freiheit geben.")

*See his Sonnet "Natur und Kunst."

There can be no law without order in phenomena, and so in human actions order is the necessary condition of any certain and free activity. Where no one knows what will happen or what people will do, there is no freedom to do anything, and civilization cannot rise above barbarism. Liberty never began until the *order*, first observed in nature, gave some certainty and freedom to human effort, and then the consequent increasing order and law of human societies made the increase of freedom possible. Thus, order was and is ever the condition of Liberty: the base of progress. But equally true is it that Liberty, the choice of the line of action most easy, safe, and beneficial to the actors must, and has become the common action, order, and hence, *law*, which has sustained an ever higher liberty. Thus in turn "Liberty is ever the mother of an improved order." The static is ever the base of the dynamic: while the growth of the dynamic ever broadens its static base.

Exactly in this spirit Nationalism comes to restore in our country the *conditions* of liberty and individuality, by conforming to the natural organic laws of our National existence and progress, and making them the basis of secured liberty. Tyranny is simply monopoly: it is organic action stolen and misappropriated. It is the use of social power for the selfish gain and ends of the tyrant. The ancient tyrants were political: the modern are industrial. The remedy is the same: the organic action of the people must replace them. In the physical body this action first comes in play for protection, and then to feed and sustain. So in our body social, the first function of government was exercised to protect our liberties by war, as our fathers did against a foreign foe. But now civilization in its evolutionary advance calls for organic action to defend the people from the internal foes of monopolies and the "wolfish competition of selfishness." The monopolists and anarchists combine to defeat this onward step of civilization and liberty. Both of them are retrogrades. The true line of progress is unmistakably that by which *organic action* can defend every member of the commonwealth from foes not only abroad, but *at home*, by placing under him, at least the necessary conditions of life, liberty, and the *opportunity* to achieve some happiness by the performance of some duty.

The notion that the organic provision of these conditions will breed only a herd of "human cattle," has no support in fact or theory. It is only the immoralities and degradation enforced by merciless competition and "Poverty's unconquerable bar," which represses the noble in human nature, and develops the cunning, the selfish, the mean, and the contemptible.

If the notion is, that a secured material sustenance will give a sameness of character, life, and pursuits;

the very opposite would evidently result. There would naturally be a multiplicity; for, every divergence of taste, character, and pursuit would have a freedom of development hitherto unknown and otherwise impossible. Every "sport" would then give a variety, to be continued if of value. The flowers of the garden,—were they able to co-operate and provide the most nourishing soil and the proper situation and room for growth,—would they grow all alike? To provide these conditions of success and multiplicity for the flowers and the plants, we even now have a Department of Agriculture. But for the flowers and virtues of human nature we have no support, no organic protection. We turn *them* over to the cruel mercies of brutal, immoral competition in the race for wealth and power as the *sole objects* of life, and then talk of the depravity of human nature. And clergymen in the pulpit, and, alas! some out, cry—*Amen!*

LOCALIZATION OF BRAIN-ACTIVITY.

III.

SENSORY CENTRES.

The most important motory regions of the human brain are, according to all authorities on the subject, situated around the fissure of Rolando. There is less agreement concerning the sensory centres. The optic centre is situated, according to Meynert, Munk, and Huguenin, in the first, second, and third occipital lobes; according to Exner, in the first and second only, and in the upper part of the cuneus.

The acoustic centre lies in the temporal lobes. Irritations of these centres cause hallucinations of hearing. In post mortem examinations Huguenin found the temporal lobes of deaf patients in an atrophied condition.

The centres of taste and smell are, according to Ferrier, supposed to be situated in the *uncus gyri fornicati*.

The tactile centres, according to Trippier, Exner, Petrina and others, must be sought for in the regions of their respective motory centres.

The frontal lobe does not contain either motory or sensory centres. It seems to be in the service of more abstract kinds of mental activity, and is most likely also the seat of affectionate and emotional centres. Defects of this part, be they acquired or inherited, are as a rule accompanied with idiocy or lack of intelligence. Monkeys in whom the frontal lobes were removed, showed no irregularities in the exercise of their motory and sensory functions; yet they appeared more whimsical and less affectionate than before.

EXPERIMENTS UPON ANIMALS.

It is a strange fact that the hemispheres as well as the corpus striatum exhibit no sensitiveness to pain

whatever. They can be cut, irritated, or maltreated in any way without causing direct suffering.

Experiments have been made to deprive animals (mostly pigeons, hens, and frogs, but also dogs) of their entire hemispheres. A pigeon without its hemispheres stands firmly on its feet if only the cerebellum remains unimpaired, but has lost all signs of intelligence. It behaves as if it were asleep. It will stand quietly in one place for hours and hours.

A brainless pigeon is without clear consciousness because it has lost all the memories to which sensory irritations may be referred. Yet it is not entirely void of feeling. The sensory and motory nerves perform their functions as usual, and with perfect harmony. The pigeon "quivers if a pistol is shot off near by; its eye winks at the approach of a flame, and the pupils contract. It turns away from ammonia vapor" (Landois). Its consciousness however, if consciousness it can be called, is limited to the moment and to that one sense-impression which takes place at the moment. This sense-impression remains isolated, it cannot be compared with former memories. Thus it remains understood, and is quickly forgotten.

Hens endure the operation better than other birds. For a few hours, they lie exhausted; then they rise and remain in a sitting posture. Again, after hours, they walk about, scratch the floor of the room, and after a few days they begin pecking for food, although there may be nothing on the ground. Some hens learn again to eat and drink, if water and food is put into their bills, and thus can be kept alive as living automata for several months. (See Exner in Hermann's "Physiologie," Vol. II, Part II, p. 199.)

Frogs preserve perfectly their equilibrium after removal of their hemispheres. If turned on their back, they will rise to their feet. If irritated, they will make two or three jumps, with a view to escaping. If thrown into water, they will swim until they touch the wall of the basin; then they will creep up on the edge, where they remain. In all motions producible as direct reflexes upon their proper irritations, they show a perfect mastery of their limbs and harmony of movement. Yet without irritation there is no motion; there is no spontaneous voluntary action whatever. A brainless frog, if left to itself, will remain quietly on the spot where it has been placed, as if asleep; it will take no food, betrays no consciousness of hunger or thirst, shows no sign of fear, and unless artificially fed, will in time dry up like a mummy.

That which in animals and in man appears to us as spontaneous and voluntary motion, is the result of cerebration among the memory-pictures of the cortex, acting, as we suppose, in co-operation with the *corpora striata*. When the memory-pictures have been removed, an animal is unable to act except in response

to sensory impressions, that is by direct reflex-motions.

* * *

Goltz invented a new method to remove the hemispheres of animals, which has the advantage of causing less irritation than the scraping them out with a knife or a sharpened spoon. He injected through small apertures in the skull a jet of cold water, and thus succeeded in washing out the cortex without injuring other parts. Goltz distinguishes two kinds of effects: those which after some time pass away and those which remain for good. The former are mere temporary disturbances, while the latter alone can be considered as a loss of functions which have their seat in the removed parts.

A dog that has been deprived of the greatest part of his cortex is, as Goltz expresses it, an extremely complex reflex-mechanism that eats (*fressende Reflexmaschine*). He behaves like a perfect idiot, walks slowly and awkwardly, with the head downwards. His sense of touch all over the skin is obtuse. He shows a lack of information concerning the surrounding world and his own body which is mainly noticeable when he is fed. He sees, but like a sleep-walker who avoids obstacles without being aware of what they are. He hears, for he can be roused from his sleep by loud calls, but he hears like a man who is but half-awakened from a profound sleep and has not as yet recovered his full consciousness. The disturbances of all the other senses are analogous. He howls when hungry, but does not search for food. If fed, he eats until his stomach is full. He shows no indications of sexual instinct, and is generally without any interest or sympathy.

PSYCHICAL ACTIVITY. THE ORGAN OF CONSCIOUSNESS AND THE SEAT OF INTELLIGENCE.

The motory as well as sensory centres of the hemispheres must be considered as psychical regions; that is, they are the places in which the action of the nervous mechanism may be and often is accompanied with consciousness. This is corroborated by the fact that an irritation of these regions does not produce the usual result in new-born animals; their psychic activity is not as yet developed and a few fibres only are differentiated in the white nerve-substance of their hemispheric region. In further support of this the circumstance can be adduced (according to Schiff), that these cortical centres cease to work if the animal manipulated upon is kept under the influence of chloroform or other narcotics.

Consciousness is the most complex and concentrated form of feeling. Feelings, we can fairly assume, may take place in all the innumerable cells of our body so long as they are alive. But these feelings are ex-

tremely weak and by far the greater part remains isolated. Feelings, we assume, depend upon a special form of activity in animal substance. The sensory fibres of the nervous system are a mechanism constructed to co-ordinate and concentrate the various feelings; while the motor fibres co-ordinate the reflex-activity in such a way that it may be subservient to, that is, it may act upon irritations received from certain co-ordinated centres of feeling. The final concentration of both activities, sensory as well as motory, takes place in the hemispheric region and it is in this final concentration that consciousness is produced.

Meynert considers the whole nervous mechanism of man as "three superordinated systems of projection." The first or highest system of projection is the corona radiata, comprising all those tracts which connect the hemispheric ganglions, the thalamus, and the Four Hills. As the second system of projection Meynert describes the course of fibres from the great ganglions (viz., thalamus, Four Hills, and corpus striatum) to the central gray substance which forms the walls of the aqueductus Sylvii and the bottom of the fourth ventricle.

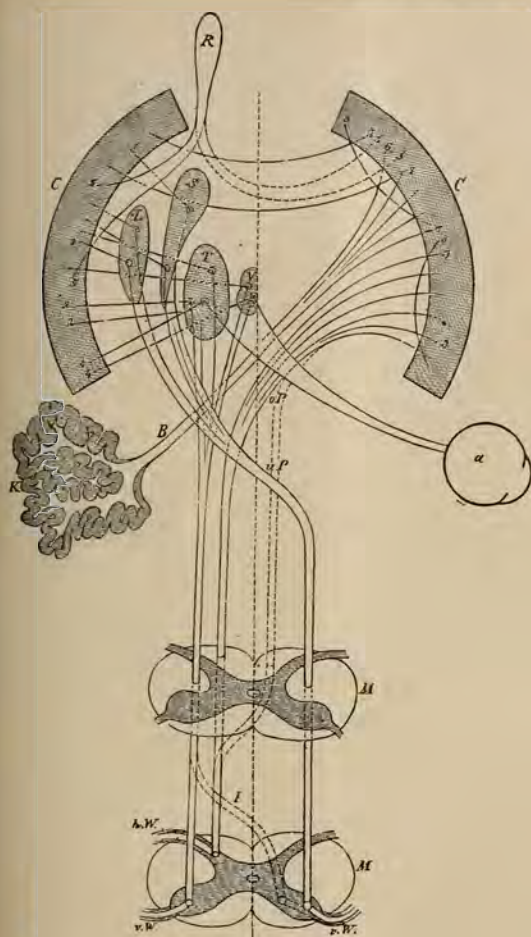
In the accompanying diagram representing Meynert's view of the nervous system, the lines connecting *T'* (thalamus) with *nIV* (anterior root of spinal cord) are paths of reflex motions descending from the thalamus. Their presence is proved by the fact that after the destruction of the voluntary motor tracts an involuntary mobility is preserved which can be produced through simple reflex-action so long as the thalamus remains unimpaired.

The third system of projection are the fibres below the central gray substance, namely the motor and sensory nerves which connect this part of the nervous system with the periphery.

The cerebellum forms a central organ of its own, being in connection with the hemispheres, the pons, and the medulla.

Every system of projection from the most peripheral to the most central, from the third to the first, is a further concentration of feelings and of their corresponding motor reflexes. The first system, which is the highest and most centralized, is alone the seat of consciousness. Accordingly no feeling, no sensation, nor any motion, can become conscious unless it be projected into the hemispheric region. All sensory irritations which do not rise into, and all motory reflexes which do not originate from this highest region—remain unconscious.

We say that no nerve-activity except that which is projected into, or takes place in, the hemispheres can become conscious; but we do not say that all the nervous activity of the hemispheres does become conscious. Many most complex actions, motions as well



MEYNERT'S REPRESENTATION OF THE NERVOUS SYSTEM.

(After Meynert's investigations; reproduced from Hermann's *Physiology*, Vol. II, part II, p. 303.)

- C. Cortex of hemispheres.
- L. Lenticular body.
- S. Tailed body (nucleus caudatus).
- L. and S. are the hemispheric ganglia, called Striped Body.
- T. Thalamus.
- F. Four Hills.
- R. Olfactory nerve (*Riech-Kolben*).
- A. Eye.
- K. Small Brain or Cerebellum.
- B. Brachium ad Cerebellum. (*Brachium*.) Tracts connecting the Small Brain with the hemispheres.
- hP. Posterior (sensory) roots of spinal cord.
- hW. Anterior (motor) roots of spinal cord.
- MM. Two sections of the Medulla in the spinal cord.
- 1, 1. Voluntary motor tracts, passing into the lenticular L. and tailed bodies S, whence they issue downwards. They form part of the crus cerebri crossing over to the other side in the inferior pyramidal decussation (u, R), and descend to their respective anterior roots in the spinal cord.
- 2, 2. Involuntary motor tracts. They pass from the cortex into the Thalamus T and the Four Hills F, whence they issue downward to their anterior

roots forming part of the tegmentum. If there is any decussation in these involuntary tracts, it can take place in the spinal cord only as indicated in the dotted lines near I.

- 3, 3. Sensory tracts, crossing to the other side and forming the superior pyramidal decussation, in hP.
- 4, 4. Optic tracts.
- 5, 5. Olfactory tracts.
- 6, 6. Cerebellar tracts of B.
- 7, 7. Commissural fibres, connecting both hemispheres.
- 8, 8. Commissural fibres interconnecting the different provinces of one hemisphere.

as sensations, and even long chains of logical reasoning which can have their seat in the cortical substance only, are performed unconsciously. Accordingly, it is but a small part of the cerebral activity that enters into consciousness. Only the mountain peaks of cerebral nerve-activity if they rise through a process of further co-ordination above the great mass of subconscious states are illumined by a glow of concentrated feeling or consciousness.

Meynert's investigations have been modified of late by Wernicke* in so far as Wernicke demonstrates that the Shell (putamen) of the lenticular body and the nucleus caudatus do not receive fibres from the corona radiata. They form no intermediate stations between the hemispheres and the periphery. This function has to be limited to the inner stripes of the nucleus lentiformis (which are called the globus pallidus). The Shell forms a terminus of its own quite analogous to the cortical region.

If we compare the thickness of the corona radiata with that of the crus cerebri, we find that the former must contain by far the greater number of fibres. Some fibres are continuous, passing from the cortex through the internal capsule directly into the crus. Other fibres of the corona are indirectly connected with fibres of the crus by intermediate stations in the stripes of the globus pallidus. A good number however must be lost in the striped body. This reduction of fibres indicates that the striped body must contain a place which stands in some intimate relation to the cortex—more so than to the crus. The connection of the striped body (so far as it is not a mere intermediate station) must represent some special function, which seems to reduce or concentrate cortical activity, as if it were another system of projection, superordinated upon that which is represented in the relations between the thalami, Four Hills, etc., and the cortex.

The cortical activity is supposed to represent the terminus of the whole system of projection. Yet this great and wide area of gray matter cannot properly constitute the central seat or organ of consciousness; it represents rather the store-house of old experiences; it is the seat of intelligence.

Intelligence, physiologically expressed, is a great wealth of well-associated, i. e., well-interconnected

* Wernicke. *Lehrbuch der Gehirnkrankheiten*, Cassel, 1881.

and systematized, memory-structures. Consciousness and intelligence are not identical. We know for certain that intelligence and consciousness are radically different. Long chains of logical reasoning may take place without any consciousness. We may also, and often we do, unconsciously execute most complex movements that are expressive of intelligence in so far as they adapt themselves to special circumstances. In jumping, if we have any practice, we measure with our eyes correctly any given distance, and the motions of our limbs will be exactly adapted to the occasion; and yet this process of judgment does in rare cases only enter into consciousness. Word-memories have unquestionably their seat in the cortex, and yet there are many instances where fervid oratory flows from the lips of a speaker with unconscious ease. Similar acts of unconscious mental activity are performed in all kinds of gymnastic exercises, by piano players, and in innumerable other ways. While writing an author spells correctly without being in the least aware of it; and indeed all conscious thought is everywhere permeated by, interlaced with, and, as it were, carried on the pinions of, the activity of unconscious intelligence.

The function of consciousness consists in a certain stimulation of the different ideas registered in the hemispheres. The nervous battery which discharges these irritations, causing thereby now in this now in that part of the cortex an increase of blood circulation, may be called the seat of consciousness. Accordingly, consciousness, physiologically considered, would be the effect of this nervous battery upon those nervous structures with which at the time it stands in connection.

The seat of consciousness must be situated in some ganglionic organ of co-ordination. It seems as though this organ can be sought for only in the Striped Body, perhaps in the shell of the nucleus lentiformis. The Striped Body being a part of the hemispheric region must, for ontogenetic and other reasons, stand in some such relation to the hemispheres. The corpus striatum develops in the same ratio as the hemispheres, and if it is irritated by an electric current the result appears to be the same as when the motor centres of the cortex are all excited at once (Landois). Destruction causes hemiplegia (paralysis on the opposite half of the body), which often is accompanied with hemianæsthesia. Further verification of this hypothesis, that the organ of consciousness is to be sought for in some part of the Striped Body, must be expected from pathological and experimental observations.

Consciousness, if extraordinarily intense and concentrated, is called attention. Attention is nothing but a concentration of feeling in order to prepare for

and execute an act of motion. Attention is not motion. It is rather a temporary suppression of motion, but its final end and purpose is always the execution of some motion or a series of motions adapted to given conditions. Reading, studying, observing in order to understand something, are as much motions upon which conscious mind-activity can be concentrated, as is the catching of prey by animals. In a state of attention all feeling is focused upon one aim, in order to prepare in an act of deliberation, and after due preparation to serve as an irritant for, a specially adapted motion.

The unity of consciousness, accordingly, must be conceived as the product of concentration. Many feelings converge upon one point, aimed at by the irritant for action. The effect of their co-operation is an attitude of which concentrated action or desire for action directed upon one common aim is the characteristic feature. Consciousness, therefore, is neither a material nor mental essence, but it is a special state of mind. The unity of consciousness is not an original and innate quality which makes attention possible; its unity is a unification. The unity of consciousness is no intrinsic quality of mind; it is imposed upon the mind by the object of attention, which like a magnet attracts all its tendencies to motion, and thus produces in them and among them a systematic arrangement so that they all are subservient to one plan of action.

The physiological mechanism of consciousness is an unsolved problem still. If our hypothesis, that the Striped Bodies must be considered as the organ of consciousness, should be confirmed and proved, the question might be raised, Why can we not concentrate our attention upon two different objects at the same time? Why cannot one corpus striatum concentrate the consciousness of one hemisphere upon one kind of work, while the other concentrates that of the other hemisphere upon some other subject?

A satisfactory answer to this question cannot be given until we know more of the construction and mechanical action of the brain and especially of the cortical ganglia. Until then we must be satisfied with a preliminary answer. If consciousness is the common direction of mind-activity, its unity need not be constituted by, or rest upon, one unique organ. Thus a carriage may be drawn by two horses, hitched side by side and directed towards one common goal. If consciousness or attention (i. e., the concentration of consciousness) is not a unity but a unification, we need not search for one single and unique organ of consciousness, as did Descartes, who for this reason assumed the seat of the soul to be the pineal gland. Being simply a state of mind produced through a certain attitude of concentration, consciousness may have

its seat in two or even in several organs. It will obtain so long as a common direction governs the single parts of an organism; and it need not depend upon the uniqueness of its organs.

We can illustrate the state of attention by the phenomenon of vision. If our attention is concentrated upon one object which we see before us, we need not, like the marksman, shut one eye; but we may let the axes of both eyes so converge that the object of our attention is placed at the centre of vision of both eyes. The unity of vision and also of consciousness consists in this convergence; and although there are two pictures, one on each retina, and two cortical images, one in each hemisphere, the object is nevertheless perceived as one only. The concentration of mental activity may take place in both Striped Bodies at the same time. So long as it converges upon one object, so long as it is concentrated upon one and the same idea, it will be felt as a unitary state of consciousness.

It is more than probable that the mechanism which produces this mental convergence of consciousness works as automatically in normal brains, as does the co-operative adjustment of the motions of our eyes. And in spite of the wonderful result produced, it may be, and I am firmly convinced that it is, not much more complicated than the unification in the activity of our two organs of vision.

P. C.

WOMAN AND THE TARIFF.

BY F. M. HOLLAND.

THE agitation about protectionism has some resemblance to that about slavery; and it is especially to be noticed that each movement has had an utterly unpractical set of champions, in addition to its advocates on practical, common-sense ground. Abolitionism, however, had the good fortune of numbering among its most active supporters many of our noblest women, like Lucretia Mott, the Grimké sisters, Abigail Kelly, Lucy Stone, and Harriet Beecher Stowe; but no woman has made herself equally prominent against our tariff. Miss Kate Field has recently spoken with some effect against the duty on works of art; and all artists are with her; but there has been no general opposition of women, as such, to the prevalent idea, among the men at Washington, that pictures, statues, and engravings are mere luxuries, which ought to be taxed. If women really do think that culture of taste has some value in education, and that it would be a national misfortune for us to lose the *Angelus*, now kept in Canada like a fugitive from justice, by our tariff, it is high time to have the feminine view come to light. What does the fair reader of French, German, and Italian books think of a duty designed to keep them out of her hands, lest they should hinder her patronizing some American publisher? And is the tax of fifty per cent. on gloves wholly satisfactory to that sex for which they are necessities of life, to almost as great an extent as pocket handkerchiefs? No woman, at all events, would put sewing silk among her luxuries; and that is taxed thirty per cent., like the *Angelus*.

By far the worst case is that of woolen goods, most of which are under a double tax of thirty-five cents per pound and thirty-five per cent. of their cost in Europe: the result is that a poor woman who wishes to buy a shawl or a dress-pattern, of a coarse,

cheap kind, valued in the Custom House at not more than forty cents a pound has to pay a tax of one hundred and twenty-two per cent. To get an article which she could have for \$10, if we had free trade, she is forced to pay \$22.20. I take these figures from a full list of duties, compiled by J. A. Linquist, and published last September by the Reform Club, 52 William Street, New York. It must be noticed that while the manufacturer is protected by the thirty-five per cent. tax, that of thirty-five cents a pound does not protect the manufacturer but only the wool-grower. The real state of the case is something like this. A poor washerwoman buys a cheap shawl, and tells the shop-keeper to cut off enough coarse heavy cloth to make \$10 worth of goods. He takes the money from her; but, before she can get hold of the bundle, the man who owns a big factory in her village steps up and says, "Stop a moment, you can't have those goods for \$10 unless you will pay me \$3.50 for my protection." She does not see how it is that he needs to be protected more than she does; but she pays what he asks and is about to go off with the bundle. A heavy hand is laid on her shoulder, however, and another plump gentleman, with a big diamond in his shirt-bosom, says: "Don't forget me. I am the gentle shepherd; and I want to be protected too. Just hand over \$8.70 as quick as you can, for I'm in a big hurry to-night. I am going to give that needy manufacturer a champagne supper; and it won't do to get late." This time the washerwoman tries to get away with her bundle; but she is told that she is in danger of being arrested for smuggling; and away she goes with an empty wallet and a heavy heart.

Such scenes would take place in every store, if the taxes were collected directly from buyers at retail, instead of being collected from them indirectly through middle-men. It must not, however, be supposed that all women are taxed so heavily. Suppose the wife of the gentle shepherd were to buy \$10 worth of woolen goods, valued at between seventy and eighty cents a pound. She would be taxed \$7.80, instead of the \$12.20 levied on the washerwoman who bought coarser goods of what would be the same value, if it were not for the tariff. So again the woman who buys knit goods, valued at not more than thirty cents a pound, is taxed eighty-eight per cent.; but it would be only fifty-nine if she could afford to buy goods worth between forty and sixty cents. If we deducted the thirty-five per cent., levied to protect manufacturers, we shall find that protecting wool-growers costs the poor woman fifty-three cents extra whenever she buys such a bundle of knit goods as she could have for a dollar, if it were not for the tariff, while the rich woman is taxed only twenty-four cents on her dollar's worth. In the case of shawls and many kinds of woolen cloth, the rich woman would be taxed forty-three per cent., to enrich some wool-grower; but the poor woman would have to pay eighty-seven, as already mentioned. Thus poor people are taxed twice as heavily as the rich for the ranch-owner's benefit.

A promise to "correct the inequalities of the tariff" was made six years ago by our rulers; and there is a bill now passing through Congress which would increase enormously the prices, not only of woolen goods, but of such kinds of buttons, embroideries, and other necessities of the feminine toilet, as have hitherto been within reach of the poor. It is high time to consider what can be done to protect American women against the tariff.

LIBERTY AND NATIONALISM.

THIS number of *The Open Court* contains Mr. T. B. Wakeman's article, "Is Nationalism a Sin against Liberty?" We are glad to be able to present to our readers the best possible defense that can be made for nationalism, but we do not cherish the fond hope of Mr. Wakeman and Mr. Orchardson, that it can be justified before the tribunal of reason and common sense.

There is a truth in Nationalism which scarcely ever has been doubted except by the most rabid anarchists. If nationalism means the national control of certain affairs, the performance of which is of common interest, as for instance the administration of the law, nationalism has been realized in every civilized society. But if nationalism means the nationalization of all private property, so that all private interests and enterprises shall be regulated by the nation—a state of things such as Mr. Bellamy describes in his novel "Looking Backward"—nationalism is a scheme that scarcely deserves serious consideration. It is at present being greatly promoted, but together with other fashions and crazes it will pass away as soon as people get tired of the monotonous refrain "wolfish competition."

Every civilized society is an organism of co-operating individuals who in their co-operation compete to do, each one in his own sphere, the best they can. Nationalists assume that if all enterprises, all business, all manufactures, all farms, all trade, were run by the nation, each citizen would have his material sustenance assured. This ought to be proved, but neither Mr. Bellamy, nor Mr. Wakeman, nor any one of the nationalists, has been able to prove it. National enterprises in any kind of business have heretofore mostly proved failures, and it is a matter of experience that those enterprises prosper best which are carried on by private industry. Co-operation is a good thing, but nationalization is that kind of co-operation which is least desirable.

We have explained our views on Nationalism in Nos. 141 and 144 in the articles "Co-operation and Competition" and "Correct Premises but Wrong Conclusions"; both were written in answer to essays and comments that appeared simultaneously in *The Open Court*. Mr. Wakeman in his present article, "Is Nationalism a Sin against Liberty?" does not refute the arguments presented against Nationalism in these previous numbers of *The Open Court*. His idea that society is an organism cannot be disputed and has been vigorously maintained by us also. The idea that competition ought to be banished rests upon a misconception of competition. Competition is identical with liberty and comprehends the right of everybody to do better, if he can, in a certain line of industry than his fellow men. It is the creed of Homer to aspire for being the best of all.

αὐτὸν ἀρεστέρην καὶ βελτίωρον ἐρμενεύει ὁ ἄλλος.—IL. vi. 208.

[Ever the foremost to be and e'er to excel before others.]

I advise every nationalist to try for some time life under the paternal government of Prussia. The Prussian commonwealth is the best realization of a moderate nationalism. The honesty of the hereditary Working Master General, called King of Prussia, and of late promoted German Emperor, stands undoubtedly above the suspicion of bribery; and although he may make and does make mistakes, he has the best intentions to do his duty in the interest of his citizens. The moderate nationalism of the Prussian government is possible only because Prussia is a monarchy, and because the Prussian monarchs obey the maxim of Frederick the Great, that "the King is the first servant of the state."

The consequence of the moderate nationalism of Prussia is, that, to the extent it is introduced, liberty is curtailed and the citizens have become so accustomed to being ruled and taken care of, that many of them cannot endure the bracing air of freedom. They will go to the wall like a bird hatched and raised in a cage, that has escaped from captivity.

Nationalism, I repeat, is as much an extreme as is Anarchism. The best way is the golden mean between both. The truth that is contained in Nationalism as well as Anarchism is the aspiration to improve the social condition of mankind.

Our constitution contains a passage "that the pursuit of happiness" is an inalienable right of man. Does this passage mean that everybody has an inalienable right to be a pleasure seeker? My

interpretation of this passage is, that everybody has an inalienable right to improve the conditions of his life, especially the social conditions of his existence. In this aspiration *The Open Court* concurs with every one who cherishes the ideal of social progress whether he be an anarchist, or a nationalist, or neither. Yet the condition of progress, of improvement, and of a melioration of social conditions is, that we understand the laws of social life. Mere good intentions are of no avail, and schemes of improvement based upon errors will rather impede than enhance progress. P. C.

CORRESPONDENCE.

SOCIAL FACTORS IN THE STRUGGLE FOR EXISTENCE.

To the Editor of *The Open Court* :—

If, as I believe, human happiness is the prime object of life, the improvement of the condition of society and the introduction of more justice into human relations are the most important of all subjects. And this humane endeavor is the best preparation for the future, whatever that may be.

I see by your reply that you are neither an extreme individualist nor an extreme collectivist, and that you feel confident that there are departments in which each has an advantage over the other. I am also delighted to find that your mind is in a philosophical receptive attitude. What a pity it is that in nearly all controversies the contestants seem much more anxious to prove their original position correct, than to discover where to find the truth.

Before a writer can be of any service to the community he must examine his own mind to see wherein it has been distorted in youth by traditions, myths, and legends, these causing unnatural hopes, fears, and preferences.

On a subject like the future state of society, that is in the realm of the unknown, and has new factors to deal with for which allowances must be made, he must divest himself of all his artificial fears, biases, and preferences, and standing on the frontier of information in that line, he must have an unswerving loyalty to follow the truth wherever she may lead before he can make a valuable inroad into the realm of the unexplored.

As it would be profless to talk on the many points on which we agree I will pick up some of the divergences; but before doing so will make a few comments on the material with which we have to deal.

All through the barbarous past and into the dishonest present, the few have robbed the many either by undeceptive force or by deceptive law. There is no doubt that the great mass of the many who have been fleeced would be robbers if they could.

Much of this robbery has been justified to themselves by the feeling of caste and vanity that inspired men to think that some men were born to work and provide for other men.

I fear that the virtue of society cannot be raised much above the average of its constituent parts. Therefore, we sorely need a higher race of men before more just conditions are possible.

It is considered proper and meritorious to make definite and scientific arrangements for the improvement of the lower animals, suppressing evil tendencies and encouraging those that are desirable, with such effect that a little while ago the horses of America were small and vicious, while now they are large, good-tempered and symmetrical.

In the light of science that has so definitely established the potency of the Law of Heredity, it seems hopeless to try to improve society or the race as long as it is not considered a deathblow to the possibility of improving it, to send ministers to sanction the union of habitual criminals.

Spencer says that the greatest need of man is the power of self-restraint.

We know that the lower the specimen, the less of that power he has, and the more likely he is to think that the world owes him a living, whereas it only owes him the power and opportunity to get a living.

This vicious trait (that society has allowed to be perpetuated) is responsible for the large class of habitual criminals, both respectable and respectable, who (having an opportunity) will not render a service for the income they draw from society.

Lack of self-restraint and carelessness as to consequences, result in this beautiful planet being plentifully covered with their mental and physical abortions. The taxes to provide for the necessary restraint for such organisms, in the shape of locks and safes, policemen and jails, lawyers and court-houses, lunatic and inebriate asylums, are so great that all the surplus earnings of many of the reliable people are taken from them.

This enforced poverty makes them fear that they will not be able to provide for and educate a family as they ought to be; hence they forego the pleasure of a home. Good children are not permitted to come on earth because perverted sympathy has only room for the vicious people, as nine-tenths of what they are going to be at birth. And if they were born honest, truthful, and good reasoners, there would be no need of any of these very costly restraints, or even armies or navies.

I do not wish to appear excited, but when a person realizes that the fruits of the labor of the noble and industrious are spent for the purpose of raising and restraining the progeny of the vicious, leaving the salt of the earth so poor that they cannot afford to have good children of their own, then I feel that it is almost time to speak out plainly because the improvement of society is impossible unless we do so.

It is well known that a vicious mental attribute can be handed down as completely as a physical form, and for the community to be so insane as to allow the "habitual criminal" the privilege of doing this through the law of heredity, is not only to bar evolution, but it means the extinction of the good. To this society must turn its attention or retrograde.

As a rule opponents in controversy are not afflicted with an irrepressible longing to compliment each other, yet your magnanimity covertly made you pay me a scientific one. In refutation of my article that "conditions made the villain the fittest to survive," thus you kindly put it: "If Mr. Orchardson's views were true 'that virtue becomes rudimentary' humanity ought to degenerate from age to age and the accumulated result of natural selection ought to be a race of bottled scoundrels. Did not Mr. Orchardson with all his benevolent intentions for the human race survive also? or does he consider himself a remnant of paradisaic virtue."

Now I don't think that I am a proper subject for a harp and wings. Nevertheless I would raise my eyebrows in astonishment to find myself in jail, and there are many who are astonished when they are out of it. They have sons, I have none. My longing to be slightly instrumental in leaving more justice on the face of the earth, has made the conservative wealthy consider me a dangerous disturber of a state of society that is very good to them. I am consequently tabooed in my profession, and although I have sufficient self-restraint to have kept me from ever being intoxicated, or using tobacco, my income has been so curtailed by advocating the unpopular and expressing my sympathy for undeserved woe, that I dare not enter into relations that might bring expenses I might not be able to meet. You will admit that if my conscience were so elastic as to think that I was smart if I succeeded in making others support my progeny, I would be more fit and likely to survive.

No! dear Sir, you are in a good position to suggest scientific means to bring a higher community that would make more just society conditions practical. But there are other influences

besides the law of heredity that tend to make men bad, and one of these is that private and public interests conflict. You say: "The government may be able to carry the mails, but it cannot build a post-office that will last ten years."

Now the Government has no building department, and the average private contractor feels that he is committing a meritorious act when he corrupts the servants of the public with a view to swindle the Government. Our present court house was built by private contract, but the city hall was built by the Municipal Government—a far better building at nearly a million and a half less cost. If the city did all its own work, adding gas, telephone, street car, etc., and had no franchises to sell, the private corporations, who corrupt the aldermen to get these privileges, would have no incentive to do so. The aldermen having no franchises to dispose of could not afford to bribe the voter, and corruption would mainly cease. In your just rebuke of the insanity of anarchy, you say, "Society is an organized whole. "Would it not be more correct to say that it is only partly organized; abject poverty is impossible only amongst those who are included in the organization. You seem to be under the impression that personal liberty would be gone if society were completely organized.

If the postal service required 1000 men there would be ten thousand applicants. They are no more slaves than if working for private bosses, their income is more secure, and if all other lines were organized and did not conflict, the hours might easily be reduced one half, and the income increased. But I have been diverging so much that I must conclude, although there are many things I would like to say.

C. ORCHARDSON.

INDIVIDUALISM AND PESSIMISM.

To the Editor of *The Open Court* :—

READERS of *The Open Court* are unquestionably familiar with the truth that Pessimism is rapidly gaining upon Optimism. I propose to defend the highly paradoxical thesis that the tendency can only be reversed by the same reasonings which, in social philosophy lead to Anarchism; and in so doing, it will be my policy to avoid everything abstruse, and to argue from the simplest physical postulates. I assume only that motion follows the line of least resistance. From this familiar law we may immediately infer that every action of an animal (and man is an animal) must, under all the conditions, be the easiest practicable. A puppy frisks about because the motion generated in his nerve centres by the vital forces, finds less resistance in the muscles of his legs than in those imperfectly developed ganglia which he would employ if he resolved, in obedience to his master, to sit still; and if he is tied up, he awakes the neighbors with lugubrious ululations because his lungs supply the readiest outlet to the same irrepressible motion under the altered circumstances. Philosophers have not sufficiently considered these spontaneous actions. It is their restless urgency which makes liberty so sweet; it is the labor involved in their suppression which underlies the only rational theory of morality. For, if we assume with the utilitarian that the end of all action is to secure pleasure or avoid pain, we are at once confronted with some very inconvenient facts. Is it not much like a *reductio ad absurdum* to say that an obstinate slave who lets himself be flogged to death rather than beg pardon of his master, is seeking pleasure or avoiding pain? Or is it any better to make the same assertion of a drunkard who well knows that persistency in his vice will give him much more pain than pleasure? Ask the drunkard why he drinks; and he will tell you he cannot help it—an exaggerated statement, doubtless, but a statement of the great physical truth that to abstain has become, not so much painful, as exceedingly difficult; and that he drinks because the line of least resistance is determined by the organic structure of these ganglia exercised in and developed by the indulgence of his habit. For the utilitarian

postulate that all men consult their interests, let us then substitute the proposition that all men, when not prevented, do as they like; and the principles of Anarchism at once follow. For now we must infer that that system only can be permanent which reduces restraint to a minimum. And the minimum of restraint is clearly zero. The true Anarchist is Shelley's "man of virtuous soul." He "commands not nor obeys." He proposes to do what he wishes, regardless of authority. He would hinder no other man from following his own devices. But he reserves two privileges—to attempt changing the disposition of others by persuasion, and to sympathize, when he sees a fight, with the aggrieved against the aggressor.

The connection of these reflections with that tremendous Doubt which Schopenhauer made familiar to the western world is this—there is in Optimism and Pessimism a common assumption, which is precisely what we have been criticizing. Both assume that men's actions are necessarily determined by the love of something—"Happiness—pleasure, ease, content, whatever the name," and the dread of its opposite. A person who knows what immense influence both these systems have exerted, may however, well suspect that neither is more than a half-truth. Have we not, by a wholly independent process, discovered the common assumption to be what makes two falsities out of two verities, and causes them to exclude each other, which without it they would not; just as the Knights in the fable need never have quarreled if they had not both taken for granted that the shield was of one metal all through? The philosophic Anarchist denies this assumption. He holds it to be a defective generalization. Men's conscious and voluntary actions commonly, though not always, do aim at securing pleasure and avoiding pain; but all their actions, voluntary or otherwise, are determined by the wider law of motion. This theory harmonizes with fact. It resuscitates hope, which is always the spirit of the optimist. With elaborate constructiveness, piling story upon story, adding avenue to avenue like some genie architect of sepulchral gloom, Pessimism demonstrates that the systematic pursuit of happiness, in whatever direction, leads to labyrinths where men lose themselves, and where snares, pits, and lurking lions lie in wait to devour. But the whole city of despair vanishes at this one disenchanting spell. "Men seek primarily their own way. Happiness is an incident of finding it." It now concerns the magician to construct upon the vacant ground some proof that "the Unconscious" has set bounds against the successful pursuit of liberty. The Anarchist asserts the contrary. He asserts that progress within the sphere of history consists in the abolition of discordant relations among men—such relations as negro slavery, for example—by the growth of that spirit which "commands not nor obeys." He asserts this observation to be a special case of the greater truth that motion, from its earliest inception in the nebula has, by following the line of least resistance, tended to the establishment of indifferent equilibrium. He sees in absolute freedom the subjective correlative of indifferent equilibrium among social units. He regards dissolution, whether it be seen in a molecule of protoplasm or of inorganic compounds, of an individual organism, which may have been a hero or a sparrow, of a society like the Roman Empire or of an orb, like Olber's planet, or even of a system like the solar—motion liberating itself from restraint along the line of least resistance, to reappear in other aggregates which permit a nearer approximation to indifference of equilibrium. Unable, as are other men, to affiliate feeling upon the objective, or mobility upon the inert, he regards all these as inseparable correlatives, and identifies the First Cause with the ideal result. Thus Anarchism is part of a philosophy essentially spiritual. Rejecting the dogmatic conceptions of God and immortality, it rehabilitates under subjective forms the fundamental instincts which have given rise to both. It discovers sensuous gratification by not seeking it. This combination of essential mys-

ticism with formal nihilism is very conspicuous in Bakounine. Amidst "the wreck of matter and the crash of worlds," the philosophy of freedom stands forth as the principle of obedience to eternal law, and demonstrates the immutability of its source.

"In even motion by that love impelled
Which guides in heaven the sun and other stars."

EAU CLAIRE, Wis.

C. L. JAMES.

SEA AND SKY.

BY J. H. TEMPLE.

I. QUERY.

I HEAR the shoreward beat of ocean-waves:
The tide-pulsed waters, river-girt and whetted
To voiceful wrath betwixt their cavern-fretted
And monster-haunted base of buried graves,
And the wildwind-rocked world that never sleeps,
Arouse the list'ning Soul with mighty cry
And wake the bending music of the sky
That stoops and beckons to its spacy deeps
Where night-dim stars and day-effluent suns
Hide in serene profusion and excess
Of light divine: O, mighty, voiceless ones,
Whose silence speaks in teeming, crowding press
Of boundless Being more sweetly deep than speech.
What lore of life, what wisdom can ye teach?

II. PAIN.

Exquisite solvent of the Gods, and dear,
That goads Man's sluggish nature into Deeds;
The heart is waste, and barren, till it bleeds,
Poor, shrinking Soul, Hope's fruitful half is FEAR!
The fire-embowed Earth in tort career,
Knows all thine inarticulate needs;
Begets and buries Races, nurtures, feeds;
The blood would rot in Pleasure's atmosphere.
Old Chaos' self crept into Beauty's shape
Through feeling SENSE, blind Impulse at the wheel;
To think were devilish severed from to feel.
Man, 'reft of heart, were but a chattering ape!
Wine issues only from the trodden grape,
And iron must be blistered into steel!

III. HOPE.

The World is full of worlds; yet wider far
Than stretches the horizon east and west,
Vainly my thought pursues its eager quest
Of some wide-wandering world, some happy star
Enfolded in an atmosphere of rest
Where all the essences of Being are,
Where broken, finite life comes not to mar
With strife and wreck the Eden of the Blest.
The heart is full of PAIN; yet deeper down
Than finite life or shoal Volition's reach,
Within the inmost caverns of the Soul,
Beyond all utterance and forms of speech,
Springs Hope, the sceptred Queen, with budding crown,
And promise in these fragments of a Mightier WHOLE.

BOOK REVIEWS.

Les Notions de Force, de Matière, et de l'Esprit, selon la Science Moderne. By Madame Clementine Royer. Printed in the *Bulletin Mensuel d'études philosophiques et sociales*, 174 Boulevard Saint-Germain, Paris.

The Open Court has received several valuable scientific articles and monographs from this well-known French lady, among which we notice an exhaustive essay "On the molecular constitution of

water in its three physical states, and concerning the properties of gases according to a new hypothesis" (*La constitution moléculaire de l'eau sous les trois états physiques, et les propriétés des gazes d'après une nouvelle hypothèse*); and further the above mentioned essay on the notions of force, of matter, and of mind, according to modern science.

Matter and force, says Mme. Royer, are constantly being contrasted, as distinct entities, opposed to a third called *mind*. But ought really matter to be distinguished from force? No. From a purely physical point of view, force can only be conceived as the essential activity of matter. In reality we know nothing about matter, except from this very force by which it reveals itself. Matter of itself, like entity or substratum remains a postulate of reason, just like spirit or soul. Our senses do not directly perceive it. Through the touch we apprehend its force of impenetrability, force of cohesion, weight, or inertia; we realize its resistance to movement, or to the diminution of movement, its tendency to fall vertically, the pressures exerted by its weight, its variations of temperature in relation to our own temperature. Through sight we discern the forms of bodies, namely, the reciprocal limits of heterogeneous masses; the colors of their surface, their different reactions to light; their displacement in space—or, their movements. Through hearing we can only seize vibratory movements. Yet all this is merely the result of the action of forces. Matter itself, the subject and agent of all these phenomena, remains unapproachable, unobservable, unknown even to chemists, who only possess hypothetical, uncertain, incomplete data concerning the nature of matter. Most of them admit, that matter is composed of irreducible elements, called atoms; but their vague notions of atoms do not explain the phenomena. By what right, accordingly, can we presume to separate matter from those forces that alone allow us to realize its existence, to determine its quantity?

By what right can we refuse to matter-substance, of which we know nothing, a certain virtuality, and certain psychical attributes that we only gratuitously suppose to be contradictory to its nature, although these very attributes are only observable in bodies constituted of matter, and never otherwise?—The conception of matter as being distinct from force is in itself entirely contradictory, because it supposes a subject without attribute, an agent without activity, and, on the other hand, an activity without agent, or attribute without subject. This erroneous notion of matter has been simply the result of an abuse of our faculty of abstraction.

Mathematicians, in measuring forces, are compelled to abstract from their agent or substratum, and to regard as inert the agent and subject matter of these forces. From this purely theoretical distinction—only a method of analysis enabling us to study separately different physical phenomena—metaphysicians have inferred the distinction of essences, the plurality of substances, the diversity and contrast of entities. Because force had been severed from matter merely to facilitate the study of force, they concluded, that there must exist a substance of force, and another substance of matter. From the relative inertia of matter, supposed absolute, although but a geometrical abstraction, they made a special unique attribute, by modifying the concept of inertia itself, which really is not, as supposed, a pure passivity of matter, an indifference to movement or to rest, but a genuine resistance to movement.

From this theoretical abstraction of mathematicians operating with forces as with numbers, namely, without concrete entities, scholastic realism attempted to effect the separation of forces from their agent. Where there only existed one substance and diverse phenomena, it created for each phenomenon a separate substance. Not only force in general, but each mode of movement, which it determines, became an entity. Despite Bacon's loud protest against these "phantoms (idola) of the mind," there was created an entity heat, an entity light, an entity electricity.

According to Cartesian dualism matter is not only inert, inactive, absolutely passive in the movement that forces impart to it, but, moreover, matter is regarded as solid, infinitely divisible, essentially and mathematically. It can be ground more or less minutely, as sand or flour, but each of its elements remains conceived with all the attributes of solidity. This conception of substance Descartes held in common with Newton, Epicurus, and Thomas Aquinas; but Descartes forgot, that this concept of matter implied the existence of that vacuum which he denied. In his day Leibnitz was the only one who protested against the passive concept of the atom, giving to it the name of *monad*, yet without hazarding to generalize it, by extending it to the entire cosmic substance, as has been later done by Faraday, by defining the atom as a *centre of forces*.

From the concept of the solid atom, through an erroneous application of the law of proportionality of weights to masses, established by Newton, our modern physicists still hold to the proportionality of masses to their extension, and consequently, the absolutely equal density of atoms. Newton, in his letters to Leibnitz and to Clarke, and in his *Principia* repeatedly protested against the narrow, literal interpretation, which in his own day his disciples gave to the term *attraction*, which to himself was only a metaphor to designate the unknown force that draws bodies toward each other, directly as their mass, and inversely as the squares of their distances.

But why do we imagine the first elements of matter always with the exclusive attributes of solidity, with the absolute properties of the supposed mass of mechanics? Simply because it is only in the solid form that primitive humanity and children first experience the existence of matter, its impenetrability and weight. During many years the child is unable to conceive its existence otherwise, and during millions of centuries humanity was ignorant of the fact that matter could have other attributes or properties than those of solids and liquids. The discovery of the weight of the air, and our more precise notions of gases are altogether modern inventions. To the ancients the air was almost immaterial, a breath, *pneuma*, or *ψυχή*, the soul, which according to Homer left the body with the blood. To the ancient dualists matter was solid and heavy, but spirit fluid, ethereal, "*tending upwards*," as they said, in contrast to what had the tendency to fall downwards. Their concept of spirit was identical with that, which they formed of gases and vapors, which modern science, on the contrary, regards just as material as the heaviest bodies. And even endowed with much greater physical activity and dynamic energy.

The moderns, in order to distinguish spirit from matter, to spiritualize it still more, have made it a substance without weight, and even without extension: a nothing of substance, an abstraction like the geometrical point. By dint of subtilizing spiritual substance, it has been reduced to an unintelligible nullity, which itself devoid of extension cannot act upon extended matter. On the other hand, to our modern chemists matter has become more and more diluted and attenuated, incessantly tending towards dispersion in space, as if the state of fluidity were only natural to it, and the solid state a constraint, an incumbrance. But this tendency to dispersion, as now verified in all bodies, even the heaviest, is in flagrant contradiction with the concept of attraction, and with that of solidity and inertia. Thus, in modern science, matter tends to usurp the place occupied by spirit in the science of the ancients; and spirit, through a series of abstractions is reduced to a substantial nothing. To the moderns, spirit is only intelligence, understanding, namely an attribute, a faculty; it has ceased to be an entity, a substance. Living organisms can perform all their functions without it, and without spirit in any manner interfering with any of their spontaneous or reflex acts, especially those that are indispensable to their preservation. But to science matter is no longer inert: in the universe there is no entity beside matter; matter

alone is substance, and comprises the entire substance of the world. The elements are uncreatable and indestructible. The unity and identity of physical force is the great discovery of the present age, that will transform science. By virtue of this unique, protean force, all substantial elements, whether material or ponderable, ethereal or imponderable, reciprocally move and limit each other, so that all their movements of mass in reality are spontaneous and exclusively due to their own activities that differ only by measure or intensity but not by essence or quality; that is to say, in the world there only exist between the different individual elements constituting bodies, apparent differences of quality, that in reality are differences of quantity.

But the first elements of being—the atoms—are distinct individualities. Each of them is a living ego, conscious of its actions and reactions, endowed with the passive, yet more or less intense, sensation of the varying limitations to which it is subject from the pressures of all its neighbours and from the movements which it spontaneously accomplishes while reacting against them in order to defend its own share or part in space. In other words, every cosmic substance is at the same time living, conscious, thinking, and capable of willing according to perceived motives that determine its movements, which are acts. The whole substantial element of the world is thus at the same time *matter, force, and spirit*; spirit and force being only the two essential attributes of the single entity that we call matter when ponderable, and ether when it is imponderable.

Such is Madame Royer's theory.

MONISM OR ADVAITISM? An Introduction to the Advaita Philosophy Read by the Light of Modern Science. By *Manohar Nabhubhai Dwivedi*, Professor of Sanskrit, Samaldās College, Bhavnagar. Subodha-Prakasa Press. Bombay: 1889.

It seems as if modern European science, in developing the theory of evolution, had made the Hindu philosopher for the first time really conscious of the true tendencies of several of his own systems, particularly of the Advaita-system—signifying the religion of non-duality. The indefinite vastness of all Hindu philosophical categories has caused them to be regarded as arbitrary phantastic hypotheses; and yet, probably by virtue of their transcendental comprehensiveness, several of these systems, as the *Advaita*, had already in ages past fully grasped the principles of evolution, although only imperfectly carrying them to their scientific and logical conclusions.

The learned Professor Dwivedi of Samaldā College, Bombay, also seems to admit that the principles of Advaita philosophy find a very convenient expression in the principles of European monism.

This little work does not enter into a critical investigation of monism, but merely points out the striking analogies existing between both systems, without implying that the two are exactly equivalent systems. In the present case, indeed, any too close or exaggerated analogies would fail to do strict justice to either system. There is however a dangerous approach to vague comparisons in several passages of the author's work, as when he (on page 98) asserts, that "Advaitism extends the principle which monism applies on a smaller scale"; or that, "Advaitism analyses all organisms into their constituents"; or that "both monism and Advaitism are true advocates of development in its widest sense." After all, the most difficult, and at the same time, the most important task, that any philosopher could undertake, would seem to be that of pointing out the radical differences existing between European monism and the Advaita philosophy of the Hindus. Monism, with its indispensable foundations of empirical facts, is nevertheless not a disorderly heap of stones, nor are the transcendental foundations of the Advaita structure, which dates back through untold centuries. At that early date, however, it was not as yet a perfectly conscious Advaita-religion, a religion and philosophy of non-

duality. To attain to this clear conception of non-duality, it still needs the collateral support of a strictly scientific, European, monism.

NUOVA CHIAVE DEI SUONI DELLA PRONUNZIA INGLESE. Compilata secondo i più recenti portati della Fonetologia di quella Lingua, e diligentemente comparata per uso degli Italiani. By *Raffaele Quattrocchi*, Professore dei R R Istituti Tecnici, etc., etc. Oxford: University Press.

Professor Quattrocchi, who is also the author of a *Trattato completo della pronunzia Inglese* (Napoli, 1886), maintains in principle, that the difficulty experienced by Italians in acquiring a correct English pronunciation will only be overcome by their contracting the habit of carefully vocalizing according to the English fashion, by means of the vocalic restriction characteristic of the latter language, and which is obtained by displacing the guttural basis of the Italian vowels, and changing it for the palatal one of the English vowels.

In his "Nuova Chiave etc." Prof. Quattrocchi carefully illustrates this phonological process in a table of comparative examples of English and Italian sounds. The English consonants *b, d, f, k, l, m, n, p, q, r, s, v*, are sounded as in Italian. For the remaining English consonants and double consonants, and for the vowels, he then presents the well-known conventional symbols, adopted by the English phonologists Murray, Sweet, and Skeat, and the equivalent Italian sounds according to accepted Italian glottology.

Prof. Quattrocchi's scholarly treatment of this delicate and irksome subject of comparative Anglo-Italian articulation will be found a material improvement upon the approximate method of the old English-Italian grammars, like that of Millhouse and others, for example, and deserves to be strongly recommended to all Italian students of the English language.

The contents of the July *Cosmopolitan* well harmonize with the season; fiction and the description of out-of-door sports predominating.

"Our Destiny" in the July *Nationalist* is a continuation of Mr. Laurence Gronlund's descriptive series upon the evils of the present régime, and their remedy under the nationalistic form of government.

We have received from N. D. Hodges, of New York, 47 Lafayette Place, a little cloth-bound pamphlet of sixty-seven pages, entitled "Protoplasm and Life," by Charles F. Cox, late president of the New York Microscopical Society. Mr. Cox reviews the history of his subject with knowledge and skill. He leans to the opinion that living substance could never have been derived from "lifeless" substance, and his conclusion is that the general theory of evolution is still in the stage of *hypothesis*. (Price 75 cents.)

Prof. John Tyndall contributes an entertaining sketch to this month's *Forum* on the influences that have shaped his life; the article is pleasantly written and tells of many famous men.

In the *Atlantic Monthly* for July we find an article by N. S. Shaler on "Science and the African Problem." The author proposes the organization of a society, for the settlement of the Negro Problem. He says: "The African and European races must remain distinct in blood, and at the same time they must, if possible, be kept from becoming separate castes; there must be a perfect civil union without a perfect social accord; they must both march forward with entire equality of privilege as far as the state is concerned, yet without the bond of kinship in blood to unite them in the work of life,—indeed, with a sense that it is their duty to remain apart." We must refer the reader to the article itself for the details of the work of the organization proposed.

The Open Court.

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THE PROBLEM OF THE EXHAUSTION OF COAL.*

BY PROF. L. SOHNCKE.

(CONCLUDED.)

II.

ANSWER TO THE QUESTION.

THERE can be but one means of procuring a substitute for coal, and that is to utilize more extensively than heretofore the other forms of energy that Nature supplies. It will of course not be practicable to develop the muscular power of man and beast to any considerably greater extent. And so, too, it will hardly be possible to produce much greater quantities of vegetable fuel; since with the increase of population ever greater areas of land will have to be cultivated for the production of food-stuffs. So that in reality but three forms of energy remain, which admit of being more extensively employed than heretofore in the performance of work. They are:

- (1) The energy inherent in the position and motion of water, whether elevated by the sun or the tides;
- (2) The energy of the moving air; and finally
- (3) The energy of direct solar radiation.

Whereas the first of these forms of energy has been employed as a motor agency since time out of mind, so that its application requires only further perfection and extension, the utilization of the two other forms of energy incontestably demands the auxiliary service of much intellectual labor; for up to now the energy of the wind has been but extremely imperfectly applied, and that of direct solar radiation hardly at all. Moreover, the two last-mentioned forms of energy by reason of their inconstant operation (for the force of the wind varies and the sun is at times obscured) are not so well fitted for direct permanent application as a motor agency as for the *storing up* of supplies of power in available form. But to this end hardly the first tentative experiments have been made.

What form then will our civilization take when the majority of our machines are no longer driven by steam, but by water-power. The energy easiest utilized is contained in water in those places where for short distances there are considerable differences of elevation; for in such places it can either be let slowly descend, or, by means of falls, obtain great velocity. It is manifest that the conditions spoken of are most per-

fectly fulfilled in the mountains or in their neighborhood, where the water plunges from the heights in foaming cascades to the delight of the lover of nature, but without profit to the rest of humanity. Our descendants will have to accustom themselves to forego more and more the pleasures derived from the beauties of nature, for from now on humanity will have to force the water falls into laborious service. Dammed up in reservoirs, the waters of the brooks that now flow with varying currents, will be forced by means of turbine wheels to run machinery regularly. In consequence of this a displacement in the direction of the mountains will gradually take place of great settlements of human beings. But not alone to the mountains. No; also to the coasts of the great seas where in regular alternation of ebb and flood the waters fall and rise. All that is needed here, to obtain any amount of power, would be a couple of huge reservoirs. If the one basin was put into connection with the sea only at the time of high flood, and the other at the low ebb, the water of the first would be constantly kept at a high, that of the second at a low level; whereby a constant descent of water in races from the one to the other, and thus any required amount of work, would be made possible.

Whereas this utilization of the tides, although very early thought of, has not hitherto been practically carried out to any great extent, the enthrallment of rivers and streams has notably increased in our own time. In Schaffhausen, in Switzerland, a great plant was set up many years ago to bring into the service of the inhabitants of the city, a small fraction of the energy supplied by the falls of the Rhine. The motion generated by the water-power of the river is transmitted by long wire cables to all parts of the city, and employed in the most manifold ways to perform work. As people in other places receive gas and water conducted to them, so in Schaffhausen energy is conducted to people according as they need it, and payment is made for the number of horse-power used. Similar arrangements have also been made in Freiburg, in Switzerland, and have recently also been planned for Rheinfelden near Basle, but in the latter place with a modification of which we shall speak later. The consumer of energy obtains his commodity in this way more conveniently and more cheaply than if he

*From *Himmel und Erde*, by usque.

had to procure and feed continually steam-engines or gas-motors. It is certain that many cities will follow these examples. In many mountainous districts, moreover, factories are now here and there found illuminated by electricity generated by water-power; an adjacent brook has been made to supply the necessary energy to run a dynamo-machine. By rapidly turning wire brushes between the poles of a magnet, there is set up in the brushes the electric induction-current which then kindles the arc-lights or brings to a white heat the wires of the incandescent lights.

Accordingly, where formerly, to produce illuminating products, we only used coal and the gas made from it, and petroleum, in this case the energy of stored up water would be first transformed into the transitional state of electricity and the latter then into heat and light. Even for purposes of heating, man is beginning to make use of the heat that the electric current produces in the wire through which it passes. We see, therefore, that when in the manner described the current has been generated by dynamo-machines driven by water-power, the energy contained in the water by virtue of its position or motion, will have been changed into the other form of energy, namely heat.

Although there can be no question that in consequence of the supplies of energy so easily obtainable in such places, mountainous districts and the coasts of seas will in the future be chosen by preference as the seat of human habitation, yet the aggregation of human beings at those points would soon become too dense if it were not possible to conduct the energy there to be had for great distances into the interior. The transmission of power by wire cables after the Schaffhausen system is, of course, not adapted to great distances. But two other possibilities are presented: the transportation of the pressure of water or of compressed air in large strong pipes, and the transmission of power by electricity. Both methods appear to be capable of greater perfection, and especially the latter, of whose potential capacity we have already many favorable illustrations. The method is very simple. A dynamo-machine driven by water-power would furnish an electric current. This current could then be conducted through thick metal wires offering little resistance to a second dynamo-machine some miles distant, which would begin to turn the moment the current passed through it. And thus by means of the electric current, at this distant place, where by nature no sort of power stood at the disposition of man, the machine would be set revolving and be able to perform useful work of any kind. In the same manner electric railways will be operated, and trains be hurried along without snorting or blowing and without disagreeable smoke, as though driven by spirit hands.

As, on the one hand, the electric railway seems

destined to replace in many localities the ordinary railroads now in operation; so, on the other hand, will the latter to a great extent undoubtedly have to give way to transportation by canal-boats, which will carry far more cheaply, partly by the employment of animal power, such commodities as by their nature do not demand rapid transportation.

We thus see the civilized nations of the future, especially in the vicinity of the mountains and sea-coasts, studded with great cities; we see them intersected by countless water-highways, crossed in all directions by cables for the transmission of power, and traversed by trains run by electricity, and very rarely by the old-fashioned ones run by steam. While this picture of the future is drawn with intimate reference to contrivances at present used, and can, therefore, make some pretension to correctness, we shall obtain a far more obscure and more fantastic picture if we endeavor to depict in what way the two other forms of energy mentioned can be made to serve the needs of humanity.

The energy of the moving atmosphere is, it is true, already here and there utilized. In the broad lowlands of North Germany and Holland the traveler not infrequently remarks the characteristic presence of wind-mills, whose sails can be always turned towards the quarter from which the wind blows. Naturally, a constant and regular power is not to be obtained from this source. But the energy of the wind thus irregularly supplied can be stored up. This has already been accomplished in many places by so-called wind motors. A wind-mill drives a pump which carries the water from a well, pond, or stream, to a reservoir upon some elevation, from which it can be allowed to flow down again and made to turn wheels.

But there is still another way of storing up energy; viz., by means of the electric current. And since this method has been much discussed and probably has a great future, we shall also explain it here. Let us conceive an electric current passing through a cell that consists of two soft loose lead plates and diluted sulphuric acid. Under the action of the current the two plates are so changed that they bear the relation to one another of two entirely different metals. But we know that when two different metals are dipped into an acid and both plates are united by a wire, an electric current begins to circulate. And this, too, must take place when two plates changed as above are dipped into diluted sulphuric acid. This contrivance is called an accumulator. An accumulator, therefore, is nothing else than a galvanic battery capable of producing an electric current for a certain length of time. But the form of the energy of the current is, as we know, capable of any number of modifications; since by means of dynamo-machines it can be very

easily transformed into heat, light, or motion. So that wind-mills may be used to drive dynamo-machines and the electric current produced used to charge accumulators! We should thus have stores of energy ready at any time to be transformed into any other desired form of energy. It would thus seem to be possible in the course of time, to arrive at good results in this way, although at present it falls far short of perfection.

And now let us briefly consider our last refuge: the direct utilization of the energy of the sun. In regions where the sun shines for a long space of time with undimmed radiance, Mouchot's *récepteur solaire*, which was exhibited in 1878 in the Algerian department of the Paris exposition, might perhaps be profitably employed. A concave mirror of brightly polished metal is formed to resemble a hollow cone, the aperture of which measures exactly a right angle. If this conical mirror be so placed that its axis points to the sun, the rays from the metal surface will all be reflected towards the axis, and a cylindrical vessel filled with water, which has been placed at this point, will become heated and the water will finally boil. It is evident that in this way the rays of the sun can be caught and made serviceable to humanity; especially if the apparatus be regulated by a mechanism causing it to follow the course of the sun. Nevertheless, this arrangement appears to be but the germ of an idea capable of greater development.

Upon the basis of this or a similar idea, a storage of the energy of the sun might perhaps be made practicable even in our latitude, where the radiation of solar energy is so often interrupted, and a complete imitation of that method of storage effected that kind nature brings about in the formation of plants and of coal, and in the vapors of water being constantly lifted up in the skies. We should have to use here a thermo-electric column. A number of strips of two different kinds of metal are placed alternately end to end so as to form a zigzag band, and are soldered at their points of contact. If the two ends of the band be united by a wire and one of the strips of metal forming the terminal indentations of the band be heated, an electric current will begin to flow. It therefore does not seem inconceivable to produce in this way, by concentration of the rays of the sun, thermal currents, and to use the same in the production of accumulators. In this way the energy of the sun, whose radiation we receive interruptedly, could be put in a permanent form, that is transformed into latent chemico-electrical energy.

We can even conceive of a process of distillation produced by the heat of the sun, whereby the latter would be made, directly, or after necessary concentration, to act upon great quantities of water. The va-

pors thus arising would then have to be condensed in a basin placed upon some high spot, the downward flow of water from which would enable us to perform any kind of work. In a similar way in regions supplied only with salt water the heat of the sun is at the present time utilized by allowing it to shine through glass-screens upon the salt water, thus producing evaporation. The pure aqueous vapor is then precipitated during the night in drops upon the glass-panes now cooled by radiation, and flowing along the panes is taken up in receptacles, to serve as fresh drinking water, the saline particles not having been evaporated with it.

The last-mentioned suggestions and plans are greatly fanciful, and, if at all, will be realized in different forms and in the distant future.

But to close. In my first remarks upon the available coal-supply I have spoken only of Europe; here only will the supply be exhausted in the near future. Other countries seem to be more richly possessed of these stores. The North American coal fields extend over an area five times as great as the European; and so, too, the Chinese. The Australian coal districts are said to equal those of Europe. Now, it is certain, that for many purposes coal is, and will remain, by far the most convenient form of energy; for instance, for the smelting of ores (for which at present about a third of all English coal is used), for railroads, etc. So that if the employment of the other forms of energy described does not take place at the proper time and in the most extensive manner, we shall have to resort for many purposes to the purchase of coal from the countries that are supplied with it. And the fear is then certainly justifiable, that the countries having these "black diamonds," as the result of their possession, will outstrip the effete Europe. Compelled to pay large sums for coal from foreign countries, we shall hardly remain competent to compete with these favored peoples. And what will the result of this be? The displacement of the centre of civilization from Europe to these coal countries; perhaps a wandering of the nations thither, accompanied by wars for the acquisition of these treasures or for the conquest of the lands that conceal them.

But perhaps it will be possible in the meantime, with the advance of human civilization, long before the outbreak of such dreadful events, substantially to diminish everywhere the consumption of coal and to substitute before long other forms of energy for the same. When all mankind shall have become convinced that our stock of coal is not possibly to be replaced, and that its economical use is a question of existence, not only for a single nation, but for the whole human race, some international arrangement, with regard to the consumption of coal may possibly

be brought about, similar to the present Postal Union; and the mining of coal and the uses to which it shall be put will be placed under international supervision.

But whither do I wander? And into what historical vistas is my path lost? Perhaps matters will take an unforeseen and very different shape from that in which we have depicted them. Yet one thing the thoughts we have broached do teach, that despite the countless triumphs of the human mind in the subjection to our wants of the forces of nature, the so-called "lord of creation" still finds himself in complete dependence upon the natural earthly conditions that have placed insuperable barriers against all his efforts.

AMERICAN AUGURIES.*

BY FELIX L. OSWALD.

VI.

THERE is no doubt that long before the end of the twentieth century our country will be convulsed by agrarian agitations; but here, as elsewhere, the common sense of the *bona fide* agriculturists will turn the scales in favor of law and order.

There are worse rocks ahead: Sectarian education and the Chinese problem. The next generation will have to decide the question if a Republican government can afford to connive at the intrigues of corporations laboring to perpetuate their prerogatives by stifling the instinct of liberty in its cradle and waging a systematic war, not against special forms of rationalism, but against reason itself,—but who, on the other hand, have carried the manufacture of moral masks to a degree of perfection that partly defeats its own purpose and may, therefore, be accepted as a temporary compromise.

But the worst rock on the horizon of the future is the Mongol immigration problem. It is a lee-shore reef that cannot be avoided, and we must trust to luck and pluck to steer our way through its breakers. China has long reached her practical maximum of population, and Nature has repeatedly removed the surplus by her merciless correctives: pestilence and epidemic famine. The hunger-year, following the civil war of 1859, subtracted at least two millions, the long drought of 1875 and 1876 about 3,500,000. In the province of Kiang-Soo towns and whole districts were entirely abandoned. The home government of a country like that could never prevent a mass-emigration if the efluent channel had once burst its sluices; they might as well try to stop the exodus from an overstocked anthill. Another drought or two, another inroad of the West-Tartars, with the least encouragement from the trans-Pacific side, and that exodus would soon become pandemic, and every western breeze would cover our shores with additional legions

of an endless Mongolian locust-swarm. A war of races might fail to cure the evils of such an invasion. Have we a right to *prevent* them? Whatever political vicissitudes futurity may have in store for the United States, it is certain that for centuries to come this country must remain the home of the progressive races—a boat manned with a picked crew, a field sown with the winnowed wheat of the Old World, an arena sacred to the Republican principle: *La carrière ouverte aux talents*. What chance beyond the mercy of a Coolie-slave dealer have the dregs of an East Asiatic despotism in such a country? The fossils of a petrified nation in a land of restless progress? There is no hope for them. The *asthenia* of the Chinese race is not the weakness of infancy, but the debility of old age. Faculties which are only dormant in other nations have become extinct in their souls; they are *incurious*, rather than ignorant, slaves without the love of liberty, not cowardly only but devoid of the instincts which may stimulate even a craven to heroic deeds, and unmanly to that hopeless degree which begets indifference to personal shame and personal pollution. To praise their industry is making a virtue of dire necessity, for in an over-populated country like theirs, death by starvation is the inexorable alternative, and the laziness of the wealthy Chinaman combines the mental torpor of the opulent Turk with the physical indolence of the aristocratic Italian.

That lethargy might be ascribed to the paralyzing influence of despotism, but the conclusion that it could be reclaimed by liberty would be wholly gratuitous. Prisoners, not invalids, can be benefited by open gates, and liberty develops vices, as well as virtues. Emancipation from the control of their home feudalism, which developed the British immigrants' talent for self-government and industrial enterprise gave the same free scope to the cruelties and anarchical tendencies of the Spanish colonist, and would emancipate only the evil passions of many Oriental nations. The modern Greeks would value our sparsely settled mountain regions chiefly from a bandit's point of view. Malay immigrants would only run amuck over a larger territory, and their Mongolian neighbors would give free rein to vices which only their abject poverty and the Draconic code of their native legislators can now partly restrain.

Their standards of human merit are too different from ours to admit of special comparisons; but the fact remains that during the last five hundred years, and under the spur of fierce competition for the barest necessities of life, a nation of 300,000,000 souls has not added a single important fact to the store of human knowledge, has not produced a single great poet, philosopher or inventor, nor a social reformer, nor even a great military genius, and the fact remains that vices

* Copyrighted under "American Auguries."

which only reared their heads among the prodigies which presaged the downfall of the most corrupt western empires, have flourished in China for centuries, like mushrooms in a pestilential swamp, and in their cities, as well as in their remote rural districts the ostracism of public opinion has long ceased to be a check on moral infamy of any kind.

Few of our countrymen have a right to reproach the worshippers of Buddha with the absurdities of their creed, and that creed is, indeed, nothing but the logical outcome of the moral type of the whole race and represents their highest conceptions of human virtue and future beatitude. When the vital energies have been spent to the last dregs by the drudgery of the day, night and sleep become the *summum bonum*, and the peace of Nirvana is perhaps the secret hope of many who have never heard the name of Buddha. The doctrine of Gautama is perhaps the best possible creed for the worn-out victims of despotism and vice; but it strikingly illustrates the utter *hopelessness* of a race which could extend its nihilism into the regions of eternity.

All Asia is suffering from a disease which has passed its curable stage; her deserts are irreclaimable, and centuries ago the raven of the Nornas has croaked its dreary "Too Late" over the efforts of her social reformers, but the last degree of wretchedness has still its gradations, and even the savages of Arabia and Beloochistan would refuse to exchange their anarchy for the loathsome stagnation of the Chinese empire, for among a number of moribund states, China enjoys that melancholy pre-eminence which Vera Cruz can claim before other cities of our malarian gulf coast. And though the public opinion of this republic is moving with a strong current in the direction of free-trade and cosmopolitan humanity, their advocates would provoke a still mightier reaction if they should compel us to admit merchandise from a fever-stricken seaport and emigrants from the pesthouse of a dying continent.

There is a curious analogy in the signs of the times—moral, social, and dogmatical—of our own age and the first century of our chronological era, the crumbling decay of an ancient culture, the disintegration into extreme materialism and eccentric spiritism, the wide-spread doubt with its concomitant longing for the peace of a conclusive creed, the cosmopolitan tendencies of a great composite commonwealth, the obliteration of old social lines of demarcation, caste-barriers, guilds, and other divisions that limited social union to a cohesion of horizontal layers, the progress of tolerance, universal eclecticism, the thousand-fold reform-projects, the mental unrest, the revelations and rumors of revelations.

Does it augur the advent of a new Avatar? The

Devas have prepared the way, and the exodus of the temple-spirits presages trouble in the city of the saints, though the fate of its dynasty will not necessarily involve the fortune of our Republic.

But that fortune, too, will at last meet its Nemesis. Sooner or later the Argo of our Union will lose her charmed anchor, and a series of prosperous voyages may end with the usual shipwreck *nil terrae semperiternum*.

"All compounds are perishable," were the last words of Buddha Sakyamuni. We are too apt to judge a day by its evening. Witness the silly sneers at the founders of the ancient republics and the "memorable downfall of their idols." Was Greece a failure because the wonder-star of her fate has at last declined? Was Rome a failure because the eyrie of her eagles is now a nest of mousing owls? Can the death-slumber of Italy revoke the fact that for nearly seven centuries she teemed with life and light?

We are too apt to forget that every season ought to be judged by its own fruits, and that Nature attains her purpose in transient products.

Our own country has already partially fulfilled that purpose, and if after centuries of prosperity the day of our fortune should wane, if its evening should be clouded by tyranny, misery, and fanaticism, what of that? "Let come what will, we have been blest." No winter can efface the memory of a glorious summer; and if the time should come when the desert-sand shall cover all valleys from Dan to Bersheba, it will be enough to know that in those same valleys millions of our fellowmen have fulfilled the happiest destiny of their species.

THE BASES OF FICTION.

BY W. R. THAYER.

OUGHT the Realist to be ranked with *scientific* investigators? "I will report only what I can see and what I hear," is his first rule. But immediately a difficulty arises: it is humanly impossible for him to report all he sees and hears, or even a considerable portion of it. He must select—and the moment he begins to select that element of personality which precludes exact science, becomes prominent. The chemist cannot select; he must give each step in his experiment; he cannot say, *I may ignore this*. But the Realist does and must decide what to use and what to pass by, and his personality dominates his decision. He has very lustily denounced as unnatural, unscientific, the employment of plots in fiction, but what is this selecting from a mass of incidents a few which he deems interrelated, if it be not the employment of a plot? "Still, I derive all my material from observation," he may reply. And here again, facts have contradicted him.

But suppose he were right—suppose he could escape from personality, that law of our being, and restrict himself absolutely to observation, could he then establish his claim of being the true interpreter of life? Far from it. Observation is but one function, and not the most important of intelligence. We perceive objects singly, disjointedly; but in our mind there are powers which classify and arrange them, according as they differ from or resemble each other. Every instant of our lives, our memory and our faculty of association are busy recording and distributing in proper categories the impressions which the outside world makes on our senses; and our mind conceives different ideas which have no existence in outward nature, but are as real as any we have. From these elements which the senses furnish, the mind creates, it cannot help creating general ideas just as truly as Nature creates new forms from her material elements. Now, until the gospel of Realism was preached, men were agreed that this power of creation was the highest attribute, the peculiar glory, of the human race: because by it has originated the government, the religion, the art, the literature of mankind. Without it, men could never have reached so simple a truth as that we should do unto others as we would have them do unto us. The life of every intelligent human being may be described as the perpetual effort to realize, that is, to work out in the concrete, the ideals which his mind has created from the elements supplied by sensation. The machine which may to-morrow revolutionize our industrial methods, the scheme which may reform our political system, the doctrine which may quicken our religious life—these exist nowhere in the material world to-day; but they exist as *ideas* in individual minds.

But the first commandment according to the law-giver of Realism is *Thou shalt not create!* He binds himself to observation; he shuts himself up in the same fold with sheep or kine, which only observe, and do not so far as we can ever prove, attain to the knowledge of general ideas, of looking before and after, of creating. Of course, Nature prevents the Realist from being as foolish as he aspires to be; he can no more restrict himself to his powers of observation and wholly cut himself off from the generalizing and creative powers of his mind, than he can, if the whim take him, see only oblong shapes and scarlet colors in the universe.

But the significant fact to remember is that the Realist desires to confine himself to this faculty of observation, and that he asserts that by this means alone the true representation of *real* human nature can be given. I have just said that this faculty we share in common with animals, which have no conception of morals. Zola has told us that with morals the Realist has no concern—that it would be as foolish, and

as unscientific for him to commend virtue and to rebuke vice, as for the chemist to love an alkali or to detest an acid.

Now, while I agree with him that the novelist's duty is to report facts as impartially as he can, I do not admit that the novelist ought to have no preference between virtue and vice. And I am not surprised that men who observe life in his temper, fix their attention on what is most gross and what is most petty, because from observation alone they can never come to understand what is essential and permanent, or to discover the real proportions between good and evil. And thus it happens that a great part of the current works of Realists are either shockingly nasty or monstrously trivial, and that the only plea which can be urged in their defense is that they are exact photographs of actual conditions. Now it is perfectly proper to strip for your bath, but it would be highly improper to appear naked in a drawing-room. Doubtless much prudishness and much hypocrisy taint our speech and habits in these matters; but deeper than our flimsy and insincere conventions, there is a reason, rooted in common sense and in moral health, which admonishes us to decency, not less in our writings than in our conduct. "In all that you speak, speak the truth," should be the guiding rule of all of us; but this is not equivalent to the gloss the Realist has added to it: "You shall speak any truth in any place." Let us be wise and respect the eternal fitness of things, although we find the Realist in this—and in so many other matters—bent on disregarding the eternal fitness of things. We find him insisting, for example, that we must keep his pictures of obscenity and debauch constantly before our eyes, or that we must hear his report of old maid's gossip continually dinning in our ears, because, forsooth, having gone up and down the world, he has chosen to poke his nose into filth, or to listen to twaddle. And the reason he gives for forcing them upon us is, not that they are agreeable, nor that our morals may be improved by them—has he not disavowed any moral purpose?—but because these things exist! A wonderful reason, a stupendous discovery, indeed! If it be our duty to take these transcripts into our mind, then, for the same reason, it must be our duty to fill our room with as many pickpockets and ruffians as it will hold,—for do not these also exist?

I do not believe that a single reader was ever made better by reading novels which pretend to give a scientific, impartial description of obscenity and vice; on the contrary I believe that they have put into the minds of thousands a dangerous knowledge which they might not otherwise have had, and that they have dulled the moral sensibility of other thousands. Nature furnishes civilized man with a keen sense of smell, by which he is disgusted with material filth. I have seen

Egyptians unconcernedly eat their meal beside a cess-pool, and sleep near a dunghill, from which Caucasians with more sensitive olfactory nerves made haste to get away. Unfortunately, the *moral* sense of smell develops slowly,—in many men is merely rudimentary,—so that they easily lose their power of distinguishing stench from sweetness, and then come to take delight in stench. And the damning objection to the literature which dominates France to-day, is, not that it is Realistic or Romantic, not that it is manufactured according to Zola's theory, or according to George Sand's theory, but that those who manufacture it have lost their moral sense of smell.

And surely we can announce that *Reality* is broader, and deeper, and higher than we could ever infer from the Realist's philosophy. There is a reality of the senses, and a reality of the mind: virtue is real, though it is not a person; sincerity is real, though it is not a tree. The mistake of the Realist is that he confines Reality to those things which he can hold in his hand, or test by methods of chemistry and physics. He has pompously introduced himself as being above all a practical man, but it is the fashion of the practical man, as Matthew Arnold remarks, "to scrape the surface of things only." He has fallen into the error of thinking that *ideal* means *visionary, vague, confused*. But ideal Reality is the true, sensual Reality the false; and the processes by which the creative faculty deals with types and thoughts, are as completely subject to law, as are the processes of observation. Imagination is the power which controls the highest workings of the mind, holding up a light before the steps of Reason. It is the faculty which penetrates to the essence of things, and discerns ever wider circles of harmony: yet the Realist confounds Imagination with the very ordinary faculty which invents ghost-stories and the plots of sensational novels! When Newton discovered that a single law rules the seemingly multitudinous phenomena of motion, he was guided by imagination; when Darwin, disregarding the non-essentials of a myriad isolated facts in Natural History, perceived that a common unity bound them together, that was imagination. And so in morals, in art, in history, in literature, wherever you meet what is most permanent and most precious,—what in a word is most *real*,—you may be sure that you are in the presence of the imagination. Human nature strains instinctively after order; and the perception of order, of harmony, gives pleasure, is beautiful. And from this instinct comes our craving for, our delight in Beauty, and the highest products of imagination are inevitably beautiful. Is not the view which Newton unfolded of the cosmos where the stars in their courses, and the dewdrop falling from a rose, equally obey a vast, harmonious law, and all move in rhythm, immeasurably more beautiful,

than any which preceded it? Is not Darwin's description of the uniform, rhythmic growth of organic life, immeasurably more beautiful and more religious, than that earlier theory of special creations, interruptions, whims, omissions? Likewise in the best expressions of human nature, this transcendent quality manifests itself. Dante and Shakespeare are superior, because their imaginations pierced deepest into the complexities of human nature and perceived wider relations, more rhythm, more harmony. M. Zola and Mr. Howells are inferior because they lack imagination, and content themselves with photographing the transitory surfaces of life. And I think that to be accurate, we should not call them Realists, but Epidermists,—writers, that is, who restrict themselves to describing the skin of things, the cuticle of society, and who have often a strong preference for very dirty skin.

What a contrast! Goethe, a genuine Realist, assigns noble praise to Schiller, because

"Indessen schritt sein Geist gewaltig fort
Ins Ewige des Wahren, Guten, Schönen,
Und hinter ihm in weissen Schleiern
Lag, was uns alle bündigt, das Gemeine."¹

M. Zola and his disciples ignore the Good, ignore the Beautiful, and wish but to bind more tightly upon us "that which already binds us all, the common," the vulgar, alleging as a reason that this is the True! But imagination—that is the quality which reveals to us the farthest-reaching truths, that is the standard by which we measure the work of statesman and scientist, novelist and painter. See how futile the piling up of facts is, till the man comes who, understanding their relations, knows how to use them; converts for instance a few tons of shapeless coal and iron and a hog's-head of water into a locomotive. Nature furnished him with no pattern of his machine: she gave the materials, and his imagination showed him how to apply them. Just in the same way she may never have made a flesh-and-blood *Hamlet* or *Othello*, but she supplied the imagination of Shakespeare with the hints from which he fashioned those wonderful characters. And we know that *Othello* is true to the laws of ideal human nature, just as clearly as we know that the cosmic law discovered by Newton is true. Whence that faculty comes, no analysis can explain: Shakespeare himself could not tell us. But it is as unlikely that, before venturing to introduce the players in *Hamlet*, he read up all the books about the stage, or even spent a few evenings in an actress's box, as that he could have visited Brutus in his tent at Philippi, before writing the last act of *Julius Caesar*, or passed a few mornings in Queen Catherine's boudoir, before writing *Henry VIII*.

We cannot explain the origin of the imagination, but we recognize its works. Let me recall a single example of it in music—an art, by the way, which could

never have been perfected by observation, because outward nature furnishes only very rudimentary sounds, like the chirping of sparrows, the clucking of hens, the braying of donkeys, and the rushing of wind and waters. Beethoven, lying awake one night, heard a man who had forgotten his latch-key, rap sharply with the knocker on the door. Instantaneously there flashed into Beethoven's imagination the thought, *So Fate knocks on the door*, and with this thought there poured in a musical theme, which he afterwards expanded in one of the sublime movements of his Fifth Symphony. All this in a moment, while perhaps a score of other "Realistic" persons in that street heard only a commonplace noise, and grumbled at a stupid man for disturbing their slumber. When anyone possesses imagination in this higher degree, common people call it genius, knowing very well that the name does not explain the power; Realists, who tolerate nothing "occult," deny the existence of genius, but do their roundabout, chemico-physical terms define it any better or explain it at all?

In epochs when the imagination is dull, men strive by lower methods to represent reality, although, as we have seen, the imagination alone can do this adequately; and they borrow, therefore, the tools and processes of science, and hope by microscopic analysis and by the accumulation of hundreds of minute, trivial details, to pass off their counterfeit on us. One of these mighty fellows requires a chapter for telling us that his hero went down town in a horse-car; another devotes twenty pages to speculating whether his heroine ought to have said "Thank you" to the waiter at a dinner-party. The buttons on your waistcoat are not less interesting than the stars in Orion to these disciples of Reality: a wart looms huge as Olympus to their insect eyes! They waste their time over externals; they take down dialects in short-hand; they count freckles and measure wrinkles; they attach great importance to "local color." And when their travail is ended, behold, they have brought forth but a mouse, a "Realistic" mouse indeed, yet still only a mouse. And if you point out to them that their purpose should not be to compete with Nature—for she has a canvas of infinite extent, and time of infinite duration for painting her pictures, whereas man has but a span's-breadth of canvas and a few brief years,—they rage at you as a visionary, and call you 'idealist,' 'romanticist,' and other very dreadful names. Yet the truth remains that the way in which to paint (say) a ten-acre meadow is not to take a ten acre canvas, and to count every blade of grass, and every drop of water in the brook which flows through it. Nature will beat the Realist every time, and if our ears were a little keener, no doubt we should hear her laughing at him. "I furnish innumerable symbols," she would say to him: "it is for you

to discover the relations among the things they represent. In a few algebraic symbols the astronomer writes the formula of the earth's motion around the sun, but these symbols are not the earth, nor the sun, nor the motion, although you maintain that they are." Coleridge's advice should be recommended to all who wish to portray life. "A poet," he says, "ought not to pick nature's pocket: let him borrow, and so borrow as to repay by the very act of borrowing. Examine nature accurately, but write from recollection; and trust more to your imagination than to memory."

"I never see sunsets like yours," said a "Realistic" lady to Turner. "Don't you wish you could, madam?" was his reply, and it may be ours to any "Realist" who declares that he never saw the beauty, the spirituality in life which we find reproduced in the works of all those who have represented life most truly. So those who have no sense of humor, might maintain that humor does not exist: and it would be of no avail to prescribe for them a course of reading in Cervantes. "The light that never was on sea or land" shines not in their mind's eye.

This lack of imagination, this mistaking of symbols for realities, this worship of the external and transient are always evidence of weakness; and to-day they indicate that the art of fiction, so far as it is tainted by them, is sickly and decadent. Had we time to review even hastily the history of other arts,—painting, for example, or sculpture,—we should find similar fluctuations: the imaginative Periclean period embodying the highest intellectual conceptions in the statuary of Phidias, the materialistic Roman period producing goatish satyrs; Michael Angelo's *Last Judgment* and Tintoret's *Paradise* superseded for a time by the bestialities of Giulio Romano, and by the unshaven old men and wrinkled old women of Denner. In countries morally rotten, like France to-day, the Realistic novel fastens upon the sensual and the abominable: in countries like our own, where the reading masses are not nasty, but are materialized, the Realistic novel shrewdly flatters their vanity by representing all the world as commonplace and materialistic as themselves. We hastily assume that the Elizabethan era was peculiarly favorable for the production of ideal works: but then—as now—materialistic conditions existed; and had Zola and Mr. Howells—instead of Shakespeare and his fellows—interpreted the Elizabethan age, the one would have found plenty of the abominable and gross, the other plenty of the sordid and trivial, to occupy his Epidermist methods. There were materialists and sensualists then, and always. But their reports pass away, and only the chronicles of the deeper nature abide. The Epidermist is to Shakespeare and George Eliot, as the journalist is to Thucydides and Carlyle.

Moreover, the chief distinction of our age is believed to be derived from our progress in Science; and nothing commends itself to us unless it can give the watchword, *scientific*. Since our material condition has been immeasurably improved by scientific methods—can we not talk and travel by electricity, can we not shoot a man eight miles off?—we have jumped to the conclusion that we have only to adopt the same methods in fiction and in painting, and in poetry, in order to distance all previous achievements in literature and art.

The truly wonderful advance we have made in adapting machinery to human uses, has caused further confusion. Many persons imagine that the effects of art can be produced by mechanical methods; and a photograph, in their uncultivated judgment, excels a portrait by Titian: a chromo is just as good as an original landscape by Turner. The novel as proposed by the Realists, can never be more than a literary chromo.

This exaggeration of a special trait is unavoidable; it is the defect which necessarily accompanies the qualities of the time. No nation develops symmetrically all its powers at once: now one quality is uppermost, now another: when art predominates science must languish: when science predominates, art must languish. To-day, science causes literature to suffer, by forcing upon it methods which can never produce the highest literary results. A parallel will perhaps make this clearer. There was a period when Calvinistic Theology reigned supreme: Science pined, because the facts of Nature must all correspond to the theory of Nature which Theology had arbitrarily set up; the study of History suffered, because all chronicles had to be adjusted to match the supposed methods of an Almighty whom Calvin called God: Literature sickened, taking the form of dyspeptic sermons or of Calvinized poetry, soon sinking into puerile hymns; and the other arts were banished, because Theology chose to regard the Beautiful as a seduction of the devil. This is what happens when a single quality lords it over an era; and it may well be that posterity shall be as much astonished at the tyranny of Science in our age, as we are astonished at the extravagance and despotism of Calvinistic Theology a few generations ago. The doctrinaires who to-day would force scientific methods on fiction sneer just as vehemently against the just claims of Beauty and of Morals, as those former Calvinistic doctrinaires sneered against the just claims of Beauty and of Science. Fanatics vary their hobbies, but fanaticism has the same characteristics from age to age.

Mankind trouble themselves, in the long run, very little about theories literary and theories artistic. They know enough to beware of dogmas, and to sus-

pect doctrinaires. The book comes to you, and it is idle for the writer to assure you that he produced it by the only approved method for representing the truth; you will discover soon enough how far his truth coincides with yours. Who bothers himself now about the squabbles of the Classicists and Romanticists: a few good works, and a mountain of unread polemics, have survived the conflict. "The point is," said Goethe, "for a work to be thoroughly good and then it is sure to be classic." Homer, Dante, and Shakespeare did not write to illustrate an *ism*; they did not say, *We will rely upon observation, and smother imagination*; they saw things intensely, really, and they saw that realities are so inexhaustible that all the faculties of man cannot grasp them. Indeed, it was as impossible for these masters to divorce themselves from imagination as it is for our Epidermists who do not possess imagination to counterfeit it, or to represent life *really* without it. So many-sided is life that it often requires a whole school of writers to interpret a single side; and we need not despise Scott because his interpretation differs from Thackeray's or from George Eliot's: let us rather despise the partisan who would cramp us into the straight-jacket of his little theory.

Obedient to the law of our nature we strain after perfection; we seek to express by images ever truer and more beautiful, our imperfect apprehension of unity. The healthy soul is always an aristocrat, always demands the best: and Literature is the granary wherein is stored the best from many harvests. The mystery, and wonder, and beauty of life do not diminish as we learn more of the structure of our dwelling, and of ourselves; but they are enhanced and intensified.

"To see a world in a grain of sand,
And a heaven in a wild flower;
Hold infinity in the palm of your hand,
And eternity in an hour;"—

to one who realizes this, no character is too humble, no incident too insignificant to be studied and reported; but, unless imagination illumine the work and show the relations which unite the individual to the general life, and have reverence for the proper perspective, the grain of sand will be but a bit of dead matter, the lowly character will be but a chemico-physical puzzle, the moment will be but the ticking of a clock. Whenever "Realists" succeed in setting forth by fiction permanent and valuable representations of society, it will be found that they have used, with greater or less skill, those very faculties which M. Zola commands them to abandon and suppress.

The stars have revolved and shone undisturbed while Chaldeans and Egyptians hazarded their little guess about them; unheeding they have made music together, while Galileo and Newton and Herschel

watched their dances and traced their circuits; they will not alter, though human telescopes and human theories of astronomy alter from age to age. And so, in the spiritual firmament, the stars will shine, to guide our steps, to awaken in us a deeper awe, to inspire us with a more vivid realization of beauty, to stand as the symbols of what is permanent—of Reality.

THE COMMUNISM OF SOUL-LIFE.

THE nature of all soul-life, intellectual as well as emotional, is founded upon communism. No growth of ideas for any length of time is possible without communication. It is the exchange of thought and mutual criticism that produces intellectual progress. And it is the warmth of a sympathetic heart which kindles similar feelings in others.

With every sentence that you speak to others, a part of your soul is transferred to them. And in their souls your words may fall like seeds. Some may fall by the wayside where the fowls come and devour them up. Others may fall upon a rock where they have not much earth. Some may fall among thorns which will choke them. Yet some of them will fall upon good ground: and the words will take root and grow and bring forth fruit, some a hundred-fold, some sixty-fold, some thirty-fold.

We may compare humanity to a coral plant. The single corals are connected among themselves through the canals in the branches from which they grow. No one of them can prosper without supplying its neighbors with the superabundance of its prosperity. The main difference is that the communism of soul life is much closer and more intimate, and the thinker who freely gives away his spiritual treasures, unlike the giver of material gifts, does not lose: he is rather the gainer, for spiritual possessions grow in importance the more profusely they are imparted. The commoner they are, the more powerful they become.

Every spiritual giving is a gaining; it is a taking possession of other peoples' minds. It is an expansion, a transplantation of our thoughts, a psychic growth beyond the narrow limits of our individual existence into other souls; it is a rebuilding, a reconstruction of our own souls or of parts of our own souls, in other souls. It is a transference of mind. Every conversation is an exchange of souls. Those whose souls are 'flat, stale, and unprofitable,' cannot be expected to overflow with deep thought. But those who are rich in spiritual treasures will not, as misers, keep them for themselves. For out of the abundance of the heart the mouth speaketh, and spiritual treasures are not wasted when imparted; they are not lost, but put out on usury, and will multiply and thus bring great reward, although the reward be not personal profit to ourselves.

Good and noble ideas, instructive truths, warm words of good-will and sympathy will accomplish great things. But evil words possess a similar power. Strong characters will hear and reject evil words, but weak minds will be poisoned by them. It is the great consequence that speech draws with it, which demands that before uttering it we should weigh every word. Every idle word that men speak, says Christ, they shall give account thereof in the day of judgment. And the day of judgment takes place now and here. The day of judgment is the time when every action produces its natural results. Schiller says:

"Die Weltgeschichte,
Ist das Welgerichte."

"History is the judgment of nations," and the history of every person is his life and future fate. And in addition to this fate during life-time, the day of judgment is the blessing that later on will attend every good deed and the curses that will inevitably follow upon every bad action.

Who is so vile as to be indifferent to the effects of his life after he has passed away? Who is so base as not to care whether the effects of his actions shall or shall not prove a curse to humanity? We ought to consider how posterity will judge of our actions after we are gone and what we would think of ourselves when, in the peaceful rest of the grave, we hope for neither personal advantages nor disadvantages.

We ought to reason from the standpoint of the progressive spirit in a future humanity. These considerations should be among the strongest of the motives that determine our actions.

The communism of soul-life is not limited to the present generation; it extends to the past as well as to the future. The present generation of humanity is like the present generation of live corals who have grown from, and rest upon, the work of former generations. The ancestors of the corals now on the surface lived in the shallow places of the ocean, where the sun made the waters warm and the surf afforded them sufficient food; and when in the lapse of time through terrestrial changes the bottom on which they had settled, sank slowly deeper and deeper, they built higher and higher, and in this way they managed to keep near the surface. The branches in the cold deep waters are now dead; yet they furnish a solid basis to the coral life above, where the sun shines and the currents of the surf pass to and fro.

If the corals could think and speak, I wonder whether the living generation on the surface would not rail at the corals in the cold deep below! At least the present human generation very often does. Those who feel the necessity of progress, who wish humanity to remain uppermost and to rise higher, are apt to overlook the merits of their ancestors; they observe

that the ideas of former generations are antiquated and do no longer fit into the present time. Thus they brand the old views as superstitions and forget that the views of the present generation have developed from the old, and that they stand upon their ancestors' work. It would seem as if the dead corals in the cold dreary deep must have been always unfit for life; yet there was a time when their coral homes thrilled with life; and so there was a time when the superstitions of to-day were true science and true religion although they are now dreary and cold.

Where is the coral life of the past? Has it disappeared? It has not disappeared; but continued, and its continuation is the coral life of to-day. So the humanity of former generations has not disappeared. The life of humanity continued, and lo! it is present in every one of us. We may reproach our ancestors for mistakes, but whenever we reproach them, we reproach ourselves.

We wish to be individuals, and flatter ourselves that we are quite original. Goethe explains in a little poem that the different features of his character are derived from his parents and grandparents. All together make up his character. He concludes:

"Since from the complex you cannot
The elements extract,
What is in man, that will remain
Original in fact."^{*}

It is vanity to think that we are something by ourselves. By vanity we understand a conceit which attaches a special value to Self. It is an inflation of the ego, of a something which is erroneously supposed to be quite individual and original. This pride is always ridiculous, because Self by itself is a mere nothing: it is a hollow bubble; and pride of Self is therefore correctly called vanity, which means emptiness. Our spiritual existence is an inheritance. We are a "tradition," as Goethe says in another little poem, in which he depicts the vanity of the boast to rid oneself of tradition. He says:

"Would from tradition free myself,
Original I'd be!
Yet great the undertaking is
And trouble it heaps on me.

^{*} Of this poem the beginning is better known than its conclusion. It reads in the original:

"Vom Vater hab' ich die Statur,
Des Lebens erstes Führen,
Vom Mütterchen die Frohnatur
Und Lust zu fabuliren.

Urahn herr war der Schönsten hold,
Das spukt so hin und wieder,
Urahnfrau liebte Schmuck und Gold,
Das zuckt wohl durch die Glieder.

Sind nun die Elemente nicht
Aus dem Complex zu trennen,
Was ist denn an dem ganzen Wicht
Original zu nennen?"

"Were I indigenous, I should
Consider the honor high,
But strange enough! it is the true
Tradition myself am I!"

("Gern war ich Ueberlieferung los
Und ganz original;
Doch ist das Unternehmen gross
Und führt zu mancher Qual.

Als Autochthone rechnest' ich
Es mir zur höchsten Ehre,
Wenn ich nicht gar zu wunderbar
Selbst Ueberlieferung wäre.")

There is nothing in us; but we owe it to humanity; for all soul-life is based upon communism. We cannot entirely escape its evil consequences, but neither can we entirely forfeit its blessings, and the blessings are greater than its curses.

P. C.

CORRESPONDENCE.

THE AFRICAN IN AMERICA.

To the Editor of *The Open Court*:—

MR. C. STANLAND WAKE has offered in your No. of June 26th, a criticism of my remarks on this question, apropos of my advocacy of the proposition to deport the people of African descent now in the United States to Africa. His criticism covers the following points, and accompanying comments.

First; the superstitions of the Negro are not more degrading than those of the lower class of whites of Europe, and no discrimination against the former, in favor of the latter, should therefore be made. Second; the Negro will probably develop more rapidly in this country than he has done in Africa, because in the latter country he has been under "climatic and other influences which have not only hampered him in the race for life, but have absolutely prevented any improvement." Third; the extensive hybridization of the black with the white race, Mr. Wake does not believe possible, and he doubts whether such hybridization, should it occur, will result in a deterioration of our population. Fourth; since the Negro vote can never control the government of the United States, Mr. Wake does not think that it will be of much moment as affecting the future of our country.

This criticism attacks the subject from a rational, instead of from a sentimental standpoint, and has my respect and attention accordingly. The subject is a question of facts and probabilities, and it is getting to be a subject for action. I will comment on Mr. Wake's positions as follows.

First; as to negro and white superstitions, and the respective political merits of the two races. Mr. Wake knows I suspect, that the superstitions of the Negroes are more irrational and debasing than those of any of the white race, even of the lowest. But Mr. Wake is right in supposing that I would probably prefer that the whites in question should not be permitted to exercise the privilege of suffrage, until they have shown indications of material progress and improvement; and in this opinion I am supported by the great majority of Americans. Universal suffrage is, I think, a mistake, and its evils will become more and more apparent with increase in population. The natural prosperity of a rich country, not half populated, quite blinds our eyes to the evils to come from this source.

Second; as to the probable development of the negro in this country as compared with his history in Africa. The essence of the question is involved in this proposition, and as it is a question of probabilities, a positive solution is of course impossible. So far as the facts in our possession go, they point in my opinion, to

but one result. Mr. Wake, like many others, lays great stress on climatic and other conditions in Africa, which have "absolutely prevented any improvement in the Negro." It is time that this fiction was eliminated from the question. Africa is a continent of the greatest variety of climates and productions. South Africa is a temperate region, and the cold is often considerable. Even in the subtropical regions the nights are often cool, and in regions not forest-covered, often cold enough to freeze the water in the vessels of the traveler. There are high plateaus and mountain ranges as in other continents, entirely habitable by the white race. Any and all kinds of soil can be found, and there is every natural stimulus to all kinds of human industry. But the temperate parts of Africa have not produced a civilized people. It is in fact these very regions which are the home of the lowest races of man, the Bosjesman, and the Hottentot. There is absolutely no explanation of the failure of the African race to produce a civilization in say the ten thousand years or more of their existence, but race peculiarity. And we are confirmed in this opinion when we find in this race, structural characteristics which correspond to this remarkable historical fact. These peculiarities have been demonstrated on Negroes of North American birth oftener than on those born in Africa or elsewhere.

To the naturalist these facts speak more impressively than the well-intended hopes of philanthropists. The Negro is a race inferior in character to the neolithic and most of the palaeolithic extinct races of prehistoric Europe. Only the Canstader race stands below him. The length of time required to develop modern out of prehistoric Europe has been immense, and it is supposed to have been accomplished largely by the aid of the immigration of races of older civilization from Eastern Europe or Asia. The persistency of such marked characters as those of the Negro is also known to be enormous in the animal kingdom, and human history and anthropology give us no ground for supposing that man is any exception to the rule. I lay the principal stress on the facts contained in this and the preceding paragraphs. The question is not one of black skin, nor of prejudice. The Hindoo, and some other branches of the Indo-European race are black and brown, but this fact has not prevented them from attaining a considerable civilization in letters and arts, if not yet in science. The dark skin of the Negro is but a coincidence. Some of the Zulus are quite light-colored. As to prejudice, the present writer's views are based on a cool consideration of the question. If the facts could be otherwise interpreted, no one would be better satisfied than he.

In this connection Mr. Wake refers to the incurable savagery of the Australian aborigines, and says that they may "belong to the primitive white stock." Now no one knows what the primitive race from which the Indo-European, the Mongolian, and the Negro subspecies originated. It may have been something like the Australian, who is somewhat intermediate between them. That the "white stock" originated from them is not very likely, however, as the ancestors of the Indo-European have been probably found in the pre-historic men of the regions they now inhabit. Be that as it may, the Indo-European has so long abandoned the savage state, that he takes to civilization naturally, for history has no record of the time when he was not so in one region or another. The history of the Negro is exactly the reverse. The monuments of Egypt represent him 6000 years ago as he is to-day, and his own records of himself are not to be found.

That the white and black races will not hybridize when living in contact, is a supposition that will not bear examination. No one who knows the habits of the colored race can have any question on that score. One only needs to be familiar with the streets of any city in the United States, where Negroes abound, after dark, to doubt the general result. A few observations of the streets of Washington, D. C., under the circumstances mentioned, will convince the most skeptical. Ten black and yellow women to one

white, is a fair statement. This is not stated to provoke unfavorable comparison with white women of the same type. It only shows that such colored women are numerous, and that they do not restrict themselves to their own color. We have also before us the populations of all countries inhabited by two races—as the West Indies, South and Central America, and Mexico. Hybridization is the rule, and not the exception. There is no evidence to show that the white race is improved by the mixture with the Negro, and much to show the contrary. Indeed the common sense of the matter is too plain for discussion. We want no such race to deal with in the future of our country's history, whether it be intellectual, moral, or political, if we can help ourselves.

Those who favor the continuance of the Negroes in this country entirely forget the importance which attaches to the question of heredity. They do not consider the care which is necessary to the maintenance of any superior race of dogs, cattle or horses, and how easily the good points of such are lost by a single admixture of inferior stock. Shall we not take the same care of our own species and race? The Indo-European cannot afford to waste or lose what he has been several thousand years in gaining. To allow such a condition to exist as is likely to lead to such a result, is a crime of gigantic proportions. This contamination of the superior race was one of the evils of slavery, but the supposition that the process is materially checked by the disappearance of that institution is chimerical. It may be somewhat delayed, but the general result will be the same.

I cannot admit that the million and more Negro votes are an unimportant factor in our government. These votes are in part at the disposition of those who will appeal to the superstitions of the Negro, and in part purchasable. They are not definitely assignable to any particular party, except in a large degree to that party which chooses to adopt the most unworthy methods. We do not want such votes, and such voters. Such is the ignorant vote everywhere. While the negro vote can, of course, not control our government alone, it may do so precisely as the smaller vote of New York City has elected at least one president, and has otherwise seriously impressed itself on the general government. It may readily on numerous occasions hold the balance of power. It may govern directly at least two states, South Carolina and Mississippi, and so send four senators to Washington, and in case of closely drawn issues control the senate. It will be supreme in very many local districts of the South. All this only requires to be mentioned to be understood. Its evils have innumerable ramifications throughout our body politic. There is certainly no reason why we should assume all this, when our own race has so many pressing necessities, with which we can labor with some hope of immediate success.

The federal election bill, for securing the full Negro vote in the South has passed the House, and it is said that it will probably pass the Senate. This will bring the question home both to the South and to the North. The question is, however, chiefly for the South to answer. It is this, Will you permit the Negro to vote or not? If not, will you surrender the representation which his numeration as a voter gives you in the council of the nation? If the Negro is not to vote, his name must be taken from the registry lists. It will be no difficult matter to take him from the lists by the enactment of state laws fixing an educational and property test for all voters alike. This will, of course, cut off a good many white voters. This you will not like but "you cannot have your cake and eat it too." As a Northern man I object to being governed even in part, by a non-voting population. It was partly to suppress the excess of representation possessed by the South in virtue of their slaves, the war for the Union was fought.

Which will you do? Meanwhile to settle this and the hybridization question together, I think the Negro should go back to Africa.

E. D. CORE.

THE "IDEA OF GOD" A PARALOGISM.

To the Editor of The Open Court:—

"Although we are, in fact, distinct individuals, distinguished from each other by an 'I' or 'you', by a 'he' or a 'she'; yet, when closely scrutinized, the 'You' of friends and enemies is a part of [not apart from] our own Self."—*Fundamental Problems*, page, 150.

HAVING lately perused, with much edification, Dr. Paul Carus's exhaustive tract and volume, "*The Idea of God*" and "*Fundamental Problems*," I am desirous, with his sanction as Editor of *The Open Court*, to submit here a few remarks traversing, at our present standpoint of Science and Culture, the validity of this immemorial sophism, which has seldom, if ever, been set forth more plausibly than in his two above mentioned apologies. I shall best execute this most unpopular and unenviable duty by placing, in the fore front of the *conspectus*, my own excogitated substitute, that all idea or vision, abstract or concrete, must be human not superhuman, and that Entheism, a felicitous coinage of Dr. Carus, implies the immanence or immersion of Theism, in all its multifarious shapes, in Humanism and ultimately in Solipsism. Indeed, when we speak of Ideas and Ideals, we virtually, both explicitly and implicitly, postulate the fact that Being is really only percept and concept of the human mind; that *Esse* is at once active and passive, i. e. both *percipere* and *percipi*, concipere and concipi, subject and object in one. And if such, not "Very God of Very God," but only "Very Self of Very Self" Schiller, bred a military surgeon and anatomist, whom Ueberweg terms the most gifted of the Kantians, poetically states this belief in what he labels his *Lehrgedicht*, "*Das Ideal und das Leben*," or "Realm of shadows" (Phenomena), especially in the stanza containing the couplets:—

"Nicht die Gottheit auf in euren Willen,
Und sie steigt von ihrem Weltenthron,"

and

"Mit des Menschen Widerstand verschwindet auch des Gottes Majestät,"

a poem which marks the supreme flood-tide of even his genius. My ambition is to give this poetic postulate due scientific expression and precision, and thus to make it the heirloom of universal Duncedom. Schiller, in the above "*Lehrgedicht*," which, I repeat, is probably the highest range of his "Muse," seems to distinguish between *Sinn* or Sense and *Nöth* or Mind, when he speaks of escaping from the barriers of Sense into the frictionless or free ether of Mind. But if *Sinn* stands both for Sense and Mind, as it etymologically does, and if we identify the latter with cerebration—a somatic organic function like voluntary motion or assimilation (digestion or incarnation), this apparent antinomy quite falls to the ground. Certainly, no thorough thinker can, *now-a-days*, contend, that natural functions can be vicariously or altruistically performed. All knowledge, or cognition, must therefore be, in spite of the oburgation of present day Scientism, of which Anatomy, not Astronomy, is the cope-stone, an *anthropomorphosis* and *automorphosis*, as indeed the younger and more advanced school of Zoology even already confesses. I submit that the above affirmation of thought being cerebration covers the whole solipsistic position, landing us, as it does, in the Neo-Protagorism and reversal of *Berkleyism*—that each individual Mind or Ego is, to itself, i. e. relatively, the measure, standard, and constructor (creator or demiurge) of all things and nothings, no other "glorious Architect Divine" being accessible to thought and therefore Dualism is practically non-existent. This monistic thesis or synthesis is equivalent to the *datum* that Mentation—as special mode of Sensation (Consciousness)—is the limit of all *Gnosis*, so that "thing" or object can only be cognized as "think" or subject, i. e. percept and concept, embracing thus the *omne scibile*, outside which must be only Nility. But while this alone suffices for my contention that Hylo-Idealism is all in all, I feel also that this subjectivation of object comes out very clearly from the morphology of the essential

visual factors in optical vision, viz., in the relation to the macrocosm, of certain anatomical eye structures, as I have elsewhere attempted to indicate. It is familiar knowledge, though perhaps not, as yet, quite that of the school boy, man in the street, or other Philistine, that the cones and rods of the Bacillary layer (Jacob's membrane) of the Retina are these essential elements of vision. In his "Senses of Animals" (65th Vol. of the International Scientific Series) Sir John Lubbock states the problem, the solution of which I have at heart to press home to the Editor and readers of *The Open Court* by this present contribution, thus: "The Retina is very complicated and though no thicker than a sheet of thin paper, [varying from the 30th to the 200th of an inch], consists of no less than 9 layers, the innermost of which (see Figs. 78, 79) being the rods and cones, of which there are incredible millions, and the immediate recipients of the light waves. The optic nerve does not spread itself out at the back of the Retina but, on the contrary, pierces it, so that the rods and cones look inwards towards the back of the eye, and not outwards at the object itself. In fact, we do not look outwards at the actual object, [or thing in itself,] but we see it as reflected [generated] from the base of our own eye." Enough has been quoted from a work so easily consulted, to make my deduction clear that Light—chromatic or achromatic—and all it reveals—form and substance alike—is like Sir J. Herschell's "atom," a "manufactured article" by the Self out of a something Locke terms, "I know not what," and which, until that *Encheiridion* is, in our relative sphere, non-existent, Self thus manifests itself as the apocalyptic *Ultima Thule* of all knowledge—the real Protens as Bacon styles "Nature," and *inter alia multa*, as the "Unknown [unknowable] God" our race has hitherto ignorantly and too often hypocritically worshipped, or made believe so to do. Ethically from the hideous defects, unamoral and immoral of "Nature," especially in the sentient order or disorder of "things," we are forced to the same conclusion that the "Idea of God," its Designer, is not a veridical concept, but a relic of physiological Provisionalism, or working hypothesis, to be now discarded, like Phlogiston, Caloric, the corpuscular theory of Light, Heat, Electricity and other anachronisms in Physics, Chemistry, and Ptolemaic Copernican and even Newtonian Astronomy (Spiritism or Spiritualism connoting, as they do, the same *pseudo-action*), which includes all forms of Theism, heno-theism not excepted; is a direct heritage from barbaric Medicine men—abhorrent to all true Science, moral or physical, and as much out of date in scientific epochs like the present, as Metempsychosis Pantheism, the Archeism of Van Helmont and others quite unverifiable and obscurant and indeed paralogical speculations of experience-shunning, one-sided Mysticism. It is now more than time that they should resolve themselves into positive Monism, of which Self is centre, radius, and periphery. I refer once more to Miss Naden's paper in "*Humanism v. Theism*," which very brightly relegates Deity or *Anima Mundi* to the same fabulous category as the Muses, Graces or Fates. In Fact, Theism is but Demonism, Christ's "Evil One" is but another aspect of his *sei demit* Father. The latter must be held responsible for all the Evil under, or in, the Sun, not a little of which springs from excess or defect of Insolation itself. A Theodicy or vindication of Gods works to Man, is *hopeless*. Let us give up the attempt for good. Man never can be *animal rationale* but must stagnate as only *capax rationis*, till every relic of this immemorial survival (superstition) vanishes as a *Reductio ad impossibile*.

P.S. I have read the article "God" in *The Open Court* of June 5th. It is there stated as the ultimate authority in conformity to which man regulates his conduct.—But surely Man is thus constituted Protagonist or Primum Mobile and this "ultimate authority," ultimately resolves itself from Divinity into Humanity and, in the last resort, into Ego-ity. The God of Nature, as far as the sentient creation is concerned—if omnipotent—must be a Kako-

demon—such a Parent as the worst and most ruthless White-chapel Rough—indeed no Rough can have so callous a heart. No science can transcend human concepts. The superhuman must become human from its conception in a human mind.—To transcend humanity is for humanity, a *reductio ad impossibile*. And Man can never be Man but only a semi-Bestial till he makes himself *fons, origo, and colophon* of all Genesis.

I certainly find *The Open Court* the only Freethought serial I know, which goes to the root of the matter. But it would have a yet freer hand if it gave up entirely the ambition to deal in the Absolute and "sank" to Relativism. Then all the Sphinx-like problems of the world are plainer than the Alphabet. I don't think there was ever a sillier book written than "God in History" by Baron Bunsen, Max Müller's early patron—his "dear old friend" as he calls him at p. 2309 of *The Open Court* (June 5th).

London, May 5th, 1896.

R. LEWIS, M. D.

[Dr. Lewins understands by "Self" the totality of man's soul-life with all its knowledge and aspirations and builds upon this idea his philosophy of Solipsism which he characterizes as Hylo-Idealism. "Self" includes everything human and "to transcend humanity," he says, "is for humanity a *reductio ad impossibile*."

Every philosopher has a right to choose his own terms and we do not intend to quarrel with Dr. Lewins about terms. A philosopher who chooses terms that are liable to be misunderstood, will not easily find recognition for his views. "Self," according to my terminology, does not denote the totality of man's soul-life, but that group of his concepts and impulses only, which concerns his individuality and his individual interests.

What is the human soul but the representation of the world around us. Why is the "self" of man, to use Dr. Lewins's expression, greater and more powerful than the "self" of animals? Because it represents the world with more correctness, it understands its laws better and can accordingly better adapt itself to the world and different parts of the world to itself. It is a truer image of the All, it is a clearer representation of the macrocosm, and thus it is more of a microcosm.

Dr. Lewins says, the idea of God is "a direct inheritance from barbaric medicine men." This is not denied and cannot be denied. But Dr. Lewins should not forget, that all our ideas have developed in the same way. Astronomy developed out of Astrology, and Chemistry out of Alchemy. Let us not despise the medicine man, for our present science has grown from his ideals.

If by God must be understood "the Designer of Nature," let us abandon the very word God, just as we have abandoned the notions of the medicine man. But if the word has an ethical meaning, if it means "the ultimate authority according to which man regulates his actions," I see no reason why the word God should be scorned or rejected. Criticize the concept and not the word.

We wish to call Dr. Lewins's attention to the fact that the most characteristic feature of the human is the tendency of becoming superhuman, or, in other words, the aspiration to transcend itself. There is an intrinsic impulse in man's soul to grow and to expand. The animal developed to become superanimal; and it became man. Man also has to obey the impulse to advance to nobler heights. Necessity will compel his obedience. What is science but the attempt to transcend the present concepts of mankind; and who among us is so skeptical, so agnostic, so despondent, as to think that these attempts are mere vanity?

I can see much truth in Dr. Lewins's views. His idealism, if I understand him right, cannot be denied, and the deification of "Self," as he calls it, seems to me fore-shadowed in the word of the gospel: "Who seeth Me, he seeth the Father." You inquire as to the nature of Deity, know, it appears in humanity.—Ed.]

BOOK REVIEWS.

Die Hypnose und ihre Civilrechtliche Bedeutung. By Adolf Bentivegni. Leipzig, Ernst Günther.

Scientists had unanimously predicted that hypnotism would before long invade the domain of jurisprudence, and, in fact, there have already been published several treatises relating to the importance of hypnotism for criminal law. Dr. A. Bentivegni's present treatise has been written to supply the lack of works in the German language dealing with the scientific relation of hypnotism to civil law.

The author wishes his work to be regarded only as an attempt to impart a stimulus to studies that assign to hypnotism a legitimate place in the juristic psychology of civil law, and it is addressed not exclusively to scientists, but to the cultured public at large. Before he approaches his subject the author finds it necessary to define broadly the phenomena of hypnotism and to explain the current terminology of hypnotism, and further to add a rather exhaustive demonstration of the main foundations of hypnotism, which he regards as useful, in order to be able to draw a clear line of demarcation between the notion of hypnotic suggestibility and that of ordinary suggestibility.

Concerning the civil-juridical importance of hypnotism, the author limits himself to the task of citing from the domain of civil law only points of view that possess a general significance. Adopting the *Allgemeine Landrecht für die Preussischen Staaten*, or Common Law of Prussia, as a general juristic standard, he first defines the nature of legal action, and of individual fitness for legal action. A legal act must be the embodiment of a human will. Actions accordingly are divided into two great groups: actions that entail legal consequences because they are willed; and actions to which consequences are attached, whether they have been willed or not—non-permissible or illicit actions. A human deed that externally has the aspect of an action in a juristic sense, in reality is such only when the law recognizes in the subject the faculty of acting with the consciousness of the legal consequences. In the absence of this faculty there is only an event unto which either no juristic consequences are attached, or, at least, not those that would have existed if the same expression of will-power had proceeded from an individual capable of juristic action. This legal capacity for action, above all, is a *psychological* notion; and, therefore, any physical influence upon the will, with an external result that does not correspond to the inward working of the will, would necessarily destroy the character of the deed as a legal action, simply because in the action the human will did not attain its fullest expression. What is beyond and above will, is to the law merely an event. To mechanical and physiological impediments of the will in a legal sense must be added all movements that take place without conscious psychic co-operation, namely, all automatic and reflex movements. In the concrete case all such involve the impossibility of an adequate expression of the will, and therefore, according to the common law of Prussia, cannot be qualified or regarded as legal actions. According to the same code the hypnotic subject is not "geschäftsfähig"—capable to transact business—being, at least temporarily, deprived of normal reason and reflection, and moreover he is not responsible for deeds that come under the head of non-permissible actions. The same law protects the hypnotic subject and regards it a crime to induce another to commit involuntary, automatic actions, that are injurious to the subject itself or to others, and indirectly contemplates the results of imprudent hypnotic practice, and the wanton abuse of the same as social pastime.

Irrespective of all its possible theoretical relations to jurisprudence the author believes that hypnotism, when more widely known, and better understood, will acquire a much greater practical juristic importance.

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THE MYTHICAL AND THE MYSTICAL SHRINE OF AGNES.

BY MONCURE D. CONWAY.

TO-DAY being St. Agnes's day (21 January) I repaired to her ancient church, a mile and a half out of Rome. Of all the saints Agnes is—next to the apostles and evangelists—the earliest and, I think, the most interesting to a student of Christian Mythology. She is now, and for over a thousand years has been, represented with a lamb beside her; but this is onomatopoeic—developed from her name, the Latin for lamb, (*agnus*). The earlier representations of her (third century) show no lamb. The lamb is traditionally accounted for by the story that after her martyrdom (under Diocletian) on the spot where her church (outside the walls) stands, she appeared to her parents with a lamb, and a multitude of Virgins, saying: "I am in heaven, with these virgins for my companions, and near Him whom I so loved." The antiquity of her statue in this church is proved by the lamb's absence; it is of alabaster, but the head is modern. I was standing beside Lord Ronald Gower, who has travelled in the East, and he exclaimed: "How like an Indian goddess!" I have a suspicion that the ancient head was removed because it was pagan. The legend of Agnes suggests that Diana and her stag were supplanted by Agnes and her lamb. Both were the special representatives of chastity. Actæon was changed into a stag and torn by his dogs for having accidentally seen Diana bathing. The soldiers who stripped Agnes were confounded, and dared not lift their eyes.

This exposure of Agnes is ascribed to the spot where her church stands inside Rome. This extra-mural church is the most ancient. It was founded by Constantine himself, at the request of his daughter, Constantia. Within the same grounds is the round Mausoleum erected by the same emperor for his daughters, Constantia and Helena. In 1250 it was converted into the church of Saint Constanza, in honor of the Princess Constantia, whose life was not saintly, and whose canonization is supposed to be the result of her confusion with a nun of the same name.

Thirty-five years ago the Pope (Pius IX.) came out here for a grand ceremonial with his cardinals and officers. They were in an upper hall when the floor gave way and they were all precipitated into a cellar. The Pope was not hurt, and as a thank-offering had a

huge fresco painted. It possesses some value for its portraits,—that of the late Pope (whom I once saw) being good, though it represents him in an attitudinizing posture which is comic. But as a work of art it is in impressive contrast with the ancient frescoes and mosaics, made when the Church of Rome really included the foremost intellect and art of the world. These country-folk will never see their Holy Father in the flesh again; the days of papal pageants are past. That, however, may prove an advantage to the Church, as they say the Grand Llama's invisibility is what keeps his worshipers in awe of him. There are few deities that can afford to be seen. Nineteenth century daylight is especially searching.

The spectacle of this morning was the blessing and purification of two new-born lambs on the altar of St. Agnes, and at the feet of her alabaster image. Descending the long flight of stairs to the subterranean chapel and shrine, I found it well filled—chiefly, as on other pious spectacular occasions here, by English and American tourists, who stand upright, guide-book in hand, and bend not before the elevated host or anything else. The Cardinal's benediction had to go over their staring faces to the lowly Catholics of the pit—I was near saying) lower part of the room, in their rustic dress. There was an hour of wonderful singing,—the fine soprano part, delicate as if sung by Patti, proceeding from a mustached man of forty years.

Before the altar there is much to do with the Cardinal,—a low fat man. Every church is under the patronage of some particular Cardinal, who visits it on its annual festival. When he comes his regular cardinal-robos are removed, in presence of the assembly, and the special robe, relating to this particular church, put on him. His mitre receives much attention; to-day it was taken off and put on again—never by his own hands—a dozen times. He prepares a chalice and drinks it in our behalf, so that we are in no danger of drinking to ourselves damnation, as Paul says, by reason of our unworthiness. During these performances six little boys, clothed in white, march up the aisle, each bearing a Trinitarian candle,—three candles in one, with three flames at the top—these candles being as long as the boys. They stand outside the altar railing for a time, then depart; and soon after the lambs are carried up and deposited on the altar. The two little creatures are lying in a low

basket-tray, being quite visible. They are decked out in pink ribands, and, being small and still, seem to have come from a toy-shop. It is said that they are previously given wine to keep them quiet. One of them continued to lie still, as if dead, but the other stirred vigorously, and when the mustached soprano was on one of his soaring solos a bleating antiphon responded from the altar, and was kept up. This caused general laughter. The Cardinal prayed over the lambs, sprinkled them with holy water, and they were taken out through an aisle of eager spectators.

These lambs are sent by the chapter of Saint John Lateran. After removal from the altar they are entrusted to the nuns of this St. Agnes monastery, who nourish them carefully. At a certain period they will be shorn, and the wool sent to the Vatican; there it will be placed in an urn and deposited on the tomb of St. Peter. After a time it will be taken out and woven into a pallium for the Pope. The pallium is the emblem of episcopal jurisdiction. Such innocent lambs have long been sending their snowy fleece to sanction papal authority. No wonder the little creatures bleat their protest. In the afternoon I went to the intramural church of St. Agnes, where the grand papal choir sang the famous "Jesu Corona Virginum." I was rather surprised on observing that in this church, built on the spot where the miracle attesting the chastity of Agnes was wrought, some of the frescoes are notable for classic nudity. It is that miracle which makes the chief legendary interest of Agnes. It is said that this aristocratic maiden refused to espouse a pagan prince, not only because he was pagan, but because she was already espoused to Jesus. His son having wooed in vain, the emperor resolved to try what torture would do to detach her from her heavenly bridegroom. No fetters were found small enough for her delicate limbs, but she did not shrink from the ordeal. She was made to pass through fire. Amid the flames she made the sign of the cross, and the flames parted: she passed through not only unharmed but purified. (She was afterwards slain, because martyrdom is normally necessary for canonization.) Then the soldiers were ordered to strip her naked; but, as was said above, the soldiers were confounded and could not lift their eyes. When they did, they saw Agnes completely clothed by her hair, which had miraculously grown. There is, in the vault beneath the church, where this is said to have occurred, a representation of Agnes so clothed with her hair and driven by soldiers. Many years ago, when I first saw this, I recognized at once the prototype of Lady Godiva, who rode through Coventry naked. She had petitioned her husband, the Lord of Coventry, to remove an oppressive tax from the citizens, and he idly answered, "I will do it when you go naked through the streets

of Coventry!" It was done, as readers of Tennyson's beautiful poem know, and her Lord, Coventry's Earl, stood by his light word. The tax was removed. For many years Coventry had an annual "show" in honor of Lady Godiva. Twenty-seven years ago I witnessed the procession—now I believe discontinued. The mounted Lady Godiva was a model from the royal academy. She rode on a milk-white steed (reminiscence of the spotless lamb). She wore 'fleshes,' which the modern age insisted on, and ample artificial tresses, falling nearly to her knees. It was strange enough to see this far-off outcome of St. Agnes—originally a display of nudity, and still an exposure of form. St. Agnes was a favorite in England, in Catholic times, though not particularly associated with chastity. It is said that even now, in Yorkshire, peasant maidens believe that if, for twenty-four hours, they taste nothing but pure spring water, they can invoke St. Agnes. Their rune is:

"St. Agnes be a friend to me,
In the boon I ask of thee,
Let me this night my future husband see."

For this vision the maiden must go out into some solitary place and take off all her garments. The ancient chroniclers are particularly careful in relating that Lady Godiva was clothed by her long hair, though there is no intimation that there was any miracle in the case. For Godiva is not a pious figure. She is the brave Englishwoman, and represents the secularization of St. Agnes. The soldiers, unable to look on Agnes, are now "Peeping Tom," struck blind for looking at Godiva. The saint incurred exposure for her heavenly Lord, Godiva for the good of a town. This is practical England's addition to the legend of St. Agnes. The Roman Saint is represented by a race of nuns; the English Countess by those Englishwomen of to-day who allow no prudery to prevent their doing service among rude and coarse people, or discussing freely the most delicate questions of moral reform. I remember that when some member of Parliament rebuked the women who were writing openly on the subject of prostitution, Harriet Martineau answered him: "Englishwomen remember Godiva, and will do their duty!"

The "Godiva Show" at Coventry was, I believe, a relic from the old "Coventry Mysteries." Among those "Mysteries" was one of Adam and Eve. Such were the manners of the time that personators of the first pair came on the stage naked. When this religious scandal was suppressed, there was probably an attempt to substitute some secular spectacle that would continue to draw crowds to the inns of Coventry. In looking over Coventry's annals, I found that Godiva's name was anciently (sometimes) spelt Good Eve. This seems a substitution of a *good* Eve for the

Eve who brought sin and death. It is doubtful whether there is any historical basis for the legend of Lady Godiva. She is probably the English counterpart of St. Agnes, and her name a relic of Eve. Beginning as the patroness of an exhibition of nudity, which demanded sanction, Godiva was invested with the consecration of nude Eve and Agnes, as the latter had inherited that of Diana. From such rude forms were gradually evolved refined and poetic conceptions. So far as the world knows, such evolution does not take place at Rome. An Italian friend tells me that if all the old convent chests were searched, a great many mystical, poetical, and rational interpretations of Catholic legends would be found,—written by priests who feel compelled to hide them. But I doubt this. Familiarity with such things, where attended by unbelief, is apt to breed contempt. England has always been the cemetery of superstitions; they are buried by scholars and revived by poets. As Tennyson has made Lady Godiva on her steed into a poetic constellation, so Spenser, long before, made St. Agnes into a fairy-tale, which is also an allegory. In the "Fairy Queen" St. Agnes appears under the name of Una, attended by her snow-white lamb. And it is in Una's equal command over the Lion that the secret of this Agnes myth is held. For this gentle lamb-like maiden; so delicate that she could feel a doubled roseleaf in her couch, yet whom imperial fetters could not bind, nor flames burn, is type of innocence subduing brute power. This is the power of the lamb, as it appeared in the dream of the wretched in their Ghetto, or of those who took refuge in the catacomb of St. Agnes, and scrawled there a picture of the Good Shepherd bearing a lamb. The dream was ideally fulfilled when Constantine brought Roman power to kneel at the feet of Agnes and her lamb. This is Una on her Lion, her power over which is derived from her lamb's innocence. She weaves from its snow-pure fleece an invisible pallium of jurisdiction over the Lion. If the present pope "Leo"—who looks more lamb-like than leonine, when he gets his next pallium from the lambs—could only take to heart the evolution of Agnes and her lamb into Una with her lion, perhaps "Leo" and the lamb might lie down together in the sunset, presaging the dawn of a more peaceful age.

THE ORIGIN OF REASON.*

BY T. BAILEY SAUNDERS, M.A. (OXON).

DARWIN AND WALLACE ON THE LIMITS OF THE THEORY OF EVOLUTION.

THIRTY years have now passed since the publication of the *Origin of Species*. If it were possible to regard any one work as creating a new order of knowledge;

if knowledge, that is to say, were not of slow formation,—and how many great intellects were busy with the theory of evolution before the author of the *Origin of Species* placed it upon a scientific basis,—we might assert that the appearance of that celebrated work created a new era in the history of science, the era dominated by the ideas of Mr. Darwin. For the generation which listened with incredulous ears, nay, even with distrust and suspicion, to the theory of evolution in the form in which it was then for the first time propounded, has given place to one which almost refuses a hearing to any other theory, wherever this one will explain some of the facts; a change of opinion so complete as to call to mind, as the only parallel, the passage from the Ptolemaic to the Copernican system. And just as that transformation of the science of astronomy gave birth to new ideas in other departments of thought, so the theory of evolution has opened up many fresh possibilities beyond the sphere of natural history; and the generation which has grown up under the influence of Mr. Darwin's ideas, has seen the effects of that famous change in the conception of organic nature spreading, not slowly, but by leaps and bounds, into almost the whole field of science; so that evolution has become as it were, the very sap in many a fruitful branch of human knowledge.

As to the truth of that theory and the widespread appreciation of its truth, there is the eloquent fact that even outside the boundaries of natural science, hardly a single system of organized knowledge has been left uninfluenced or unaffected by the power and range of its teaching: even the violent opposition offered on the score of religion to the main doctrine of the origin of species in natural selection has so entirely melted away, that theology now professes to find a powerful ally where she had formerly seen nothing but a dangerous foe, recognizing in this idea of a gradual evolution through untold ages a conception still more appropriately worthy of a divine power than the separate activity of a multitude of special creations. Sociology and ethics have long been brought into familiar relations with the last results of natural science; and here, too, the evolutionary principle has come to be looked upon as the breath of life. A theory with such extensive ramifications, weighed and tested in so many varied spheres, might indeed be thought to possess no limits, to afford a sure and certain basis of explanation for any and every system of knowledge, to the nature of which it could possibly be applied. It might also with some show of reason be presumed that in an hypothesis so successful, so generally adopted, and so wide a range, no questions of serious importance could still remain unsolved, and that no disagreement as to the method of its working could be any longer entertained.

* The essay is a revised edition, with alterations and additions, of certain articles in *The Scottish Review*, to the Editor of which the author makes his best acknowledgements.
London, 1890.

It would be going too far to assert this, or to say that the truth of the evolution-theory is universally accepted; still, most if not all of the leaders of scientific opinion embrace the theory in its general outlines as a demonstrated law of nature. But even at the present time, that is, even a whole generation after the theory has been promulgated, and in spite of the wide-reaching acceptance with which it has met, a very slight knowledge of the latest scientific writing reveals the existence of serious differences of view as to the precise means by which the progress of evolution is brought about. One or two of these find their exponent in Mr. A. R. Wallace, who may justly claim the honor of being a fellow-founder with Darwin of the general theory he has consistently maintained, and was indeed for a long time quite alone in maintaining, that in the whole order of nature in the organic world, (with one most important exception, to be afterwards noticed at length,) natural selection, or the survival of the fittest, is almost the exclusive means in the process of evolution; and that certain other agencies, such as heredity, sexual selection, use and disuse, which Mr. Darwin regarded as playing a definite part in the process, exist indeed, but are strictly subordinate to the general law. A recital of Mr. Wallace's arguments, set forth with great lucidity and abundance of example, appears in his recently published work, to which, in magnanimous disregard of his own intimate connection with the theory, he gives the sole title of *Darwinism*, because he is convinced that to whatever degree his own views may differ from some of his colleagues', his whole work is nothing if not illustrative of the overwhelming importance of the theory of natural selection, a theory permanently associated with Mr. Darwin's name.*

Again, Mr. G. J. Romanes has put forward a suggestion of his own in relation to the infertility or sterility characteristic of hybrids; and on this subject Mr. Darwin and Mr. Wallace are also committed to different opinions. The bare enumeration of these points will serve to indicate the nature and extent of those divergent views which, even within the limits to which the *Origin of Species* applied, still remain unreconciled among professed advocates of the theory of evolution; although within those limits it is a matter of general consent that the existence of various opinions does nothing to discredit the main hypothesis.

But in insisting on the agreement which prevails within those limits, it should be remembered what the limits are. In the *Origin of Species* Mr. Darwin did not attempt to apply his hypothesis to an explanation of any deeper problem than that which is presented by the structural differences in the world of plants and

animals. To unravel the mysteries of man's mental and moral endowment formed no part of that problem.* Although at the time at which the *Origin of Species* was published, Mr. Darwin expressly passed by the problem of the human faculty, he afterwards gave full expression to his well-known views in the *Descent of Man*, a work not indeed so epoch-making as the *Origin of Species*, but perhaps in general estimation more important from the very human interest of the question at issue. The origin of the human mind, the source of all mankind's possessions in civilization, in culture, in art and sciences, the seat of all appreciation of religious and moral truth,—what problem could be more earnest, more engrossing, than this? And in view of the conditions of the inquiry—mind considering its own origin, and that origin, too, under circumstances of which no trace or record is left—what problem could appear, it might be asked, more insoluble? If, then, at the very outset the question seemed to admit of no answer, why, it might be further asked, should we hesitate to confess our ignorance, or to take refuge in one of those poetical myths which ascribe what is by human reason inexplicable to the agency of some unseen and unknown power?

Objections and considerations of this kind have little influence with the scientific temperament, and the triumphant progress of the principle of evolution has long ago reached and attacked this the last stronghold of its opponents. Even those who fully admit the truth and efficacy of evolution as applied to the genesis of the physical organism of man,—the highest and most perfectly developed of all animals,—and who, when mind is once given, find the explanation of its growth to rest once more upon a similar law of development, pause at the question of the origin of man's distinguishing faculty, and deny the adequacy of any process of evolution to explain the genesis of mind.

The problem has given rise to radical and unpromising difference of opinion. Mr. Wallace, for example, in the eloquent conclusion to his recent work, remarks that the Darwinian theory 'shows us how man's body may have been developed from that of a lower animal form under the law of natural selection; but it also teaches us that we possess intellectual and moral faculties which could not have been so developed, but must have had another origin; and for this origin we can only find an adequate cause in the unseen universe of Spirit.'* This is the final conviction of an honest and independent investigator of scientific truth, and it is worth while to examine in brief the reasons which he gives for arriving at this opinion; more particularly because the considerations brought to bear on the problem by Mr. Wallace are of

* *Darwinism*, by Alfred Russel Wallace, LL.D., F.L.S. London: Macmillan & Co. 1889.

* *Cl. Origin of Species*, 6: 4 edition, chap. viii.

a different nature from those which generally figure in the philosophic and scientific writing of the day.*

The argument which underlies most of the reasoning of those who essay to prove that man's intellectual and moral faculties have been developed by modification from the lower animals, is at bottom an argument from analogy. If the physical organism of man has been admittedly developed from that of a lower animal by a process of natural selection alone, the argument from analogy boldly seeks to show that if the highest brutes and the lowest savages exhibit a continuity of intellectual development, this development must have proceeded *pari passu* with the physical evolution, and be occasioned by the same cause, that is to say, be also brought about exclusively by natural selection. This, as Mr. Wallace points out, is a very dangerous method of reasoning; it assumes 'without proof or against independent evidence, that the later stages of an apparently continuous development are necessarily due to the same causes only as the earlier stages': and, as there is ample evidence to prove in the case of man's intellectual faculty, certain manifestations of it are of such a nature that they could not possibly have owed their origin to the method of natural selection. To take the mathematical, musical, and artistic faculties as examples: Mr. Wallace argues that none of them can have been produced by natural selection, for the simple reason, that natural selection acts by life and death, and by the survival of the fittest out of a multitude of variations engaged in the struggle for existence; a process of development which cannot be made to account for the sudden appearance of those faculties in individuals, an appearance sporadic in its character, subject to no law that is known to us, and exhibiting peculiarities the very reverse of those which govern any process of evolution. At all events, of any of these faculties, so distinctly human in their nature, it is impossible, as Mr. Wallace asserts, 'to trace any connection between its possession and survival in the struggle for existence.'

And further, in those powers which mankind shares with other animals the amount of variations presented keeps within limits common to both; or, what is the same thing differently expressed, there is a similar level of development alike in brutes and men, in so far as their common endowments are concerned. But in the case of the distinctive faculties of man, it is only here and there that eminence is attained, and the difference of level between the few who attain it and the average man is such as far exceeds any conceivable limits of variation. The language of ordinary life testifies to this absence of all common measurement by calling the eminent person 'an inspired or heavenly genius'; and still no one seriously doubts that the faculty which

is so wonderful in its productions differs in anything but degree from that which prevails amongst men in general. Faculties, therefore, which are apparently lawless in their appearance, and at the same time so far surpass the average as to be out of all proportion to it, must owe their origin to some source other than natural selection, and cannot be explained by its method. The greater eminence these faculties attain, the more distinctly human they are, the more they show their essential difference from those animal faculties, for the development of which natural selection offers a complete explanation.

Man's mental faculties, then, says Mr. Wallace, cannot have been derived exclusively from his animal progenitors. Some new influence must have supervened at the birth of *intellect*, just as a new force must have come into play at two other stages in the course of evolution, at the appearance of *vitality*, the change from inorganic to organic nature, and at the dawn of *consciousness*, when the organism became charged with sensation. 'Those who admit,' concludes Mr. Wallace, 'my interpretation of the evidence now adduced—strictly scientific evidence in its appeal to facts which are clearly what ought *not* to be on the materialistic theory—will be able to accept the spiritual nature of man as not in any way inconsistent with the theory of evolution, but as dependent on those fundamental laws and causes which furnish the very materials for evolution to work with.'*

The hypothesis of a spiritual agency supervening at the dawn of mind—which Mr. Wallace calls *scientific* because no other so adequately explains the facts—is a resolution of the difficulty in its very nature unsatisfactory to the ardent student of nature. Such an hypothesis, it will be said at once, savors too much of the old theology, the theology which set itself up against Galileo, for instance; it is too dangerously of a piece with those dogmatic assurances of religion, which have at all times been inimical to the spread of scientific truth. In other words, this sort of theory provides us with a mystical and not a real explanation; it is a statement of events more akin to legend than to sober history. Well, be it so. As an explanation, say its adherents, it is not on that account the less rational, so long as the alleged real explanation, which is after all also an hypothesis, can be shown to be insufficient to throw light upon the facts. Call it, if you will, a confession of ignorance, a provisional suspense of judgment; it is nevertheless the creed that must be held to, the hypothesis that must be accepted, until we are fortunate enough to be presented with a better. If the theory of a perfectly continuous evolution were more adequate than this, that is, if it explained more of the facts, we, who at present

* Wallace, loc. cit. p. 498.

* Wallace, loc. cit., p. 476.

hesitate, would gladly embrace it as another step on the road from ignorance to knowledge.

This difference of opinion, this reluctance to acquiesce in evolution as applicable to the genesis of mind, is at present very far from disappearing. In the next section we will consider in what the alternative consists, and how far, even in its latest phase, it is a valid hypothesis.

(TO BE CONTINUED.)

THE SOURCES OF THE EDDA.*

BY ALBERT H. GUNLOGSEN.

In a recent number of the German Ethnological Monthly "*Am Urds Brunnen*"—at the well of Urd—among sundry topics relating to the folk-lore of Germany and of the Slav populations, we particularly notice an article over the signature Sz., entitled *Die Quellen der Edda*. The author undertakes the herculean task of following up the historical sources of the Edda. "A careful study," he says, "must soon convince us, that all the *minor* lays of the Edda, for example, the lays of Thrym, Harbard, Völund, and the lay of Fjölsvinnr, are entirely made up of Roman mythology. In the lay of Thrym we discover the legend of Prometheus; in the lay of Harbard, the labors of Hercules; in the lay of Völund, the legend of Vulcan; and in the lay of Fjölsvinnr, the fable of Amor and Psyche, as told by Apuleius. The classic names themselves are found translated and paraphrased in the Eddic poems." Sz. claims to be able to trace back the Latin source of the Edda,—that is, of the above-mentioned minor lays of the Edda,—and the extraordinary vicissitudes of the Latin manuscripts themselves, from which they had been derived.

The alleged historical facts upon which Sz. constructs his theory of the origin of the Edda, will be regarded by many as an interesting contribution to the already existing vast literature of Eddic criticism. On the present occasion it will suffice, without further comment, to pass in review the alleged facts themselves; the more so, as the author of that article entirely overlooks the primeval condition of the Asic worship, as known to have existed in Scandinavia long before the discovery and settlement of Iceland.

Sz. regrets, "that we possess no catalogue of the Latin manuscripts that Icelandic travelers and ecclesiastics of the eleventh and twelfth century brought with them to Iceland from different lands; but, on the other hand, we know that Icelandic pilgrimages to Rome frequently took place in the eleventh century, and that such a one admittedly had been accomplished by the learned Sæmund Sigfússon, to whom, or to

whose school at Oddi, is constantly attributed the authorship of the Eddic lays. Ari Thorgilsson (born in 1068) relates in his "*Íslendingabók*," Vol. I. p. 15, that Sæmund returned home from *Valland*, or the far south, and landed in Iceland about the time when Harald IV. met his death in England. This would have been shortly after the year 1066; but Sæmund, at that time, could only have been ten years old, and thus Ari manifestly confounds Harald IV. of Norway with King Harald IV. of Denmark, who died in the year 1080, when Sæmund was twenty-four years old and probably about the time he was ordained priest. It is certain, that collections of books and manuscripts existed in Iceland already in the eleventh and twelfth centuries.

As regards Sæmund, it is generally admitted that he was not the author of the elder Edda, considered as a definite and planned poetical creation. But it must be remembered, that the learned priest Sæmund also presided over a "Latin" school at the parsonage of Oddi, and the main purpose of the instruction of this school was that of fitting the pupils for the ecclesiastic state. In order to impart the knowledge of the Latin tongue that was required for the priesthood, the teachers naturally utilized the innate taste of the young Icelanders for poetical narrations. The teachers selected and related Latin fables from the Roman mythology, which at the same time might conveniently serve as the basis of a superstructure of even Christian legends. Sz. claims to have proved in more than a hundred instances, that the contents of the Eddic lays are made up entirely of paraphrases of Roman mythological fables; in other words, that the Eddic lays are simply scholastic exercises, Icelandic versions from the Latin language made by the pupils of the school of Oddi. The subjects treated were borrowed from a Codex of the Vatican mythographers, and the performances of the students faithfully rendered the original contents of the Latin Codex with all its peculiarities and in the form it was put by later Latin mythologists.

The additional circumstance, that the different manuscripts of the Edda frequently show equivalent variations and readings of one and the same Latin idea or expression, induces us to believe that there did not exist any uniform, original Icelandic text as the basis of the different lays, but simply a collection of slightly different Icelandic versions of the scholastic tasks, and that the versions had been corrected, less with regard to their contents, than to grammar and metrical form. In this manner a number of duplicates were produced, and these mythical narrations, translated from the Latin, rapidly obtained in Iceland a wide circulation, and soon became popular.

The legacy handed down by Sæmund passed into

* Conf. *Die Quellen der Edda* in the Ethnological Monthly, *Am Urds Brunnen*—*Mittheilungen für Freunde völkethümlich-wissenschaftlicher Kunde*, No. 11, Band 6. H. Carstens, Dahlenwurth. The name of this periodical has recently been changed.

the hands of his grandson, the Icelandic chief Jón Loptsson, and from the latter into those of Snorri Sturluson. To Snorri are attributed the mythological narrations of the Younger Edda. He probably only arranged the materials handed down by the school of Oddi, by Sæmund, and by his successor; as indeed is found written on the heading of the Upsala Codex of Snorri's Younger Edda. The first relatively complete collection of the lays of the Older Edda is that of the *Codex regius*, dating from the close of the thirteenth or the beginning of the fourteenth century.

It is not possible to state with absolute certainty, what ultimately became of the Latin manuscripts of the Vatican mythographers that had been used by the Icelandic scholars at Oddi; but it is supposed that this original Latin text was later sold by Icelandic manuscript collectors to Queen Christina of Sweden; but the ship carrying the manuscript seems to have only reached the island of Sandoe in the Faroe group. Also in the Faroe Isles again we encounter the very same Icelandic Edda-myths, although in a slightly different form, and altered in their contents; which, perhaps, may have been the work of local Faroese clergymen, who in their turn also attempted to paraphrase the Latin text.

An interesting and important account of the origin of these Faroese poems is found in the "*Farða Reserata*," by Lucas Debes, Havniæ, 1673. As stated by Svabo (died 1820), the Faroese lays were derived from *one*—according to others, from *two*—heavy codices, bound in leather, and written in Latin letters on very thick paper (or rather vellum). "Latin letters" are here regarded as identical with "Latin language," and to prove this the authority is invoked of both the eminent German philologists Jacob and Wilhelm Grimm. On the Faroe Isles each of the Latin manuscripts was sold for eighty crowns; one is said to have been carried away, while the other remained in Sandoe, but subsequently also disappeared from the island. The great Codex had reached Sandoe with a stranded Icelandic merchant-ship. In other words, the Faroese account informs the world, that a large Latin manuscript containing Roman mythological fables reached Sandoe from Iceland by shipwreck, in which former place it was sold for the price of eighty crowns.

Shortly before the time at which Debes wrote his "*Farða Reserata*," the learned queen Christina of Sweden, about the year 1644, had begun with much zeal to collect manuscripts and books of every description. Her library later contained no fewer than nine hundred rare codices. At her death in 1689 at Rome, all these were acquired by Pope Alexander for the Vatican library. Among these manuscripts we notice the following:

A vellum from the tenth or eleventh century con-

taining the first of the Vatican mythologists, and the second Vatican mythologist by a later hand;

A vellum containing the third Vatican mythologist from the close of the tenth or the beginning of the eleventh century;

Two other manuscripts of the third mythologist, without any accompanying description. In Iceland and in the Faroe Isles no traces have been found of the Latin manuscripts of the Vatican mythologists that formerly existed in those countries. They were, probably, among other Icelandic manuscripts, sold to the library of queen Christina of Sweden. From the queen's collection, they finally reached the Vatican library, where in modern times the librarian (later cardinal) Angelo Mai found them, and made them the basis of his Roman edition of 1831. Bode's edition, published in 1834, also made use of codices existing in the libraries of Göttingen, Gotha, and Paris.

The sources of the Edda, accordingly, in the eleventh century journeyed, as it seems, from Rome to Iceland, from Iceland in the seventeenth century to the Faroe Isles, from thence to Sweden, and from Sweden finally back to Rome. In Iceland and on the Faroe Isles the Roman codices furnished the mythological substance for several poetical narrations and paraphrases, which hitherto have indiscriminately been regarded as genuine, primitive Germanic traditions; but they openly contradict the positive statements of Julius Cæsar, who knew the ancient Germans from personal observation, and not merely from the reports of others, as did the Roman historian Tacitus. "The Germans," the Roman general tells us, "neither have Druids, superintending public worship, nor do they sacrifice. They number among their gods only those whom they see, through whose influence some tangible profit accrues to them, such as the Sun, Vulcan (*Wolken*; old high German, *Wolcan*), and the moon; of all the others they know nothing—not even by hearsay." The statements of Tacitus concerning other Germanic divinities must be referred rather to *non-Germanic* tribes. To Tacitus and to the Romans in general "*Germania*" was a vague geographical expression for a country that extended eastward to the banks of the river Vistula, just as "*Russia*" to-day frequently is applied to extensive regions that are not inhabited by Slavs or Russians."

Sz., however, may be wrong in supposing that the statements of Tacitus in regard to other Germanic divinities perforce must be referred to other "*non-Germanic*" tribes,—unless indeed the name "*Germanic*" is applied in a more exclusive sense, than even warranted by modern comparative ethnology and mythology. In order to establish the true ethnological relations between, for example, Scandinavians and Germans, it is not absolutely necessary that the theogony

of the Germanic tribes of Cæsar and of Tacitus should have been identical with that of other Germanic tribes, which probably at that time, under the military leadership of Odin and the Æsir, were still settled in the region between the Black Sea and the Caspian, and, which, according to the Edda, somewhat later pushed northward, "crossing the Vanarkoisl," that is, the confluents of the river Don, ultimately reaching the shores of the Baltic, and founding kingdoms in the Danish Isles, in Sweden, and in Norway. The contents of the Icelandic Eddas, in the main, may be regarded as the common property of the primitive Scandinavian nations.

As regards the obscure history of the Eddas in Scandinavia, in Iceland, and during the Viking period, in the Scottish Isles, we refer the reader to Dr. Gudbrand Vigfusson's great work, "*Corpus Poëticum Boreale*," and to the Scandinavian mythologists of our own time.

SENSE AND CONSCIENCE IN THE LOWER ANIMALS.

BY WHEELBARROW.

By reading the physiological articles in *The Open Court*, I have unlearned many things that I ignorantly used to know. Part of the science which I have unlearned, is the conceit that man has a monopoly of reason and conscience; that horses, dogs, and other animals have no mental or moral sense; that whatever appears rational or moral in their behavior is merely instinct or intuition; that they have no power to analyze or compare, and no sense of duty; therefore, having no capacity to violate the moral code, they are not accountable for their actions; and theologically, not being free moral agents, they have no souls to be saved.

I have become skeptical about the theology and the philosophy of all that; and I am not sure that any theologian or philosopher knows exactly where to draw the line between reason and instinct; between moral perception and animal intuition. By the new light given me, I am able to explain to myself some facts and theories in natural science, which formerly appeared like problems in supernatural geometry, too miraculous for me to comprehend. As I cannot reason the subject out as a physiologist or a philosopher might do, I modestly offer one example of animal intelligence, and ask the philosophers and the wise men to explain it on the ancient theory if they can.

I don't know how it is with horses, elephants, and other sagacious animals, but I once enjoyed the friendship of a dog who possessed both mental and moral perceptions. He had a fine intellect; I don't mean to say a large, Websterian mind, but strong reasoning faculties. He could weigh right and wrong in the scales of self-interest, and like a human being, choose

either of them by the test of his own advantage. He would equivocate and lie, either for his friends or for his own benefit. He knew he was a free moral agent, owing duty and bearing responsibility. I believe also that he had a soul, as much as I have; because I can see no reason why a share of the universal spirit should be given to me and denied to him.

My acquaintance with him began at the close of the war with Mexico, when two companies of our regiment were sent to Fortress Monroe, to relieve the Fourth Artillery, ordered farther south. Here I first met "Rough and Ready." He was named after General Taylor, but the soldiers rarely honored him with his full name; they simply called him "Rough," which, considering his appearance and character, described him very well. He was a dog of mean estate, and he knew it. He had no pedigree, nor any rank in canine society. He was merely a miscellaneous dog, without any crest, mark, or sign of high breeding or good family; an ordinary claybank cur, destitute of trade, calling, or profession. Under these circumstances, he easily fell into a loose and shiftless way of life. While I do not offer any justification for his low tastes and idle habits, I might say many things in palliation of his conduct.

In the first place, Rough and Ready had no trade, a serious misfortune for either dogs or men; a misfortune that excuses many vicious things they do. Had Rough been a pointer or a setter, he could have made a genteel income in the hunting field, where sportsmen kill for pleasure what their fathers killed for food. Had he been a mastiff, he could have made himself more useful than a policeman, guarding his master's premises at night. Had he been a shepherd dog, he could have earned an honest living taking care of sheep. Even as a terrier, had he been born in that station or degree, he could have made his board and lodging by killing rats and vermin of that kind. Unfortunately, Rough, because he had no trade, erroneously thought himself exempt from all the duties of this life. He therefore dropped into habits of dissipation corresponding to his place among the "lower orders" of his race. He wasted his time in loafing among the soldiers, whose habits, and especially their vices, he acquired. He even learned to chew tobacco, but he drew the line at whisky. Rough never descended to that.

I know that I am beating up against a strong current of tradition to the effect that dog-faithfulness is a propensity, not a principle; merely an instinct, and not a sentiment born of conscience. It is confidently said that a dog cannot desert his master, because Nature has made him true. I maintain that a dog is faithful to his master from a sense of duty; and that where his principles are unsteady he will abandon his

master to better his own condition. I maintain that Rough was a deserter from the Fourth Artillery, and that he deserted after intelligent thought and deliberation. On the evidence a court martial would have found him guilty, had he been brought to trial.

The grounds of my belief are these, Rough had belonged to the Fourth for several months, and he enjoyed an excellent position at Fortress Monroe. He was headquarters dog, with plenty to eat and drink, with nothing to do in a healthy climate, where the surroundings were all to his taste. When the Fourth was ordered south, he heard the soldiers talk about the heat, the yellow fever, the flies, mosquitoes, and alligators, until he made up his mind to desert rather than go. The night before the regiment went away, Rough sneaked over to Hampton, and remained there until he was informed that the Fourth had gone. Then he came back, and enlisted in the Second, where he resumed his old position as headquarters dog. All the evidence in the case taken together convinced me that Rough knowingly and wilfully deserted. Throughout the whole affair, he acted entirely from self-interest, just as a man of like principles would act, although he knew the obligations he was under to the Fourth Artillery.

Rough was sentenced to death by military authority; not for desertion, but for another offence which he was led to commit through evil communications. His crime and punishment illustrate again how easily good mental abilities may be perverted to bad uses when the moral nerve is weakened by vicious practices and low associations. It was the habit of Rough to spend his time at the Guard-house among the prisoners, the most inferior portion of the garrison, whose profane language and conversation he admired. I am aware that Max Müller has told us in *The Open Court* that dogs do not possess the faculty of language. And no doubt they are not able to communicate ideas according to our forms of speech, but that they understand what we mean if we speak to them, I have been convinced by Rough more than a hundred times. He came to the barracks for his meals, but he did not stay long about the quarters, they were too tidy and respectable for him, so after yawning two or three times after dinner to express his contempt for cleanliness and good order, he would borrow a chew of tobacco from a friend and then trot over to the Guard-house for more congenial company.

Being of an observing and reflective turn of mind, Rough became quite familiar with military duty, especially guard duty. It was a favorite custom with him to make the rounds with the Relief when the sentinels were changed. In this way he learned that it was the duty of a sentry to walk his post, to keep his gun in his hand, to refrain from sitting down or

lounging, and to be ever alert and vigilant. For neglect of these rules he had often seen soldiers arrested and punished, and that was the way he came to learn the importance of the regulations. As many of the delinquents were his intimate friends, Rough thought he might make himself useful in helping the soldiers to disobey orders and to defy discipline. He had noticed that when the Officer of the day, or the "Grand Rounds," or perhaps the Corporal in charge of the Relief, found a sentinel asleep on his post, or sitting down, or in any other way neglecting his duty, the offender would be arrested and confined in the guard-house as a prisoner. This preyed upon Rough's mind until he found a plan to stop it. The strategy adopted by him was effective and very simple too. At night, instead of going along with the Grand Round, the Relief, or whatever it was, Rough would trot on a little bit ahead; and when he found a sentinel asleep, or otherwise neglectful of his duty, he would rouse him up and inform him that the Officer of the day was coming.

Unluckily there was an officer at the fort who had as much intellect as Rough, and more. He was very strict with sentinels, and they complained that he would sneak upon them and take them unawares. There was truth in this, and as he was a very little man he could easily creep upon them in the night unseen. He suspected Rough and watched him. It was the custom of Major Arnold, that was the officer's name, whenever he was Officer of the day, to visit the guard-house between midnight and three o'clock in the morning. After inspecting the main guard he would make the grand round or perhaps visit the sentinels alone. Either way, it was all the same to Rough; he was always a little ahead to arouse the sentinels and tell them the Major was at hand.

One night Major Arnold made the grand round as his custom was; and while the men were falling in, he observed Rough starting off to make the grand round a little ahead and to visit the sentinels as *his* custom was also. Addressing the Sergeant of the guard, the Major said, "Sergeant! when daylight comes, take that dog down to the beach and shoot him. He makes it his business to visit the sentinels at night and warn them to look out for the officer of the day." Thus Rough became liable to capital punishment.

In the morning, just after daylight, the sergeant of the guard invited Rough to take a walk with him to the seashore for the benefit of his health. Rough eagerly accepted because he thought there was fun on the programme for him. The Sergeant, knowing Rough's familiarity with the English language, and being anxious to save him, exhorted him with great solemnity to prepare for the fate that awaited him. When the Sergeant first began to load his gun, Rough,

by capering about and barking expressed the highest approval of the proceedings, because he thought the Sergeant was going to fire at the canvas-back ducks then swimming about on Chesapeake bay, but as the exhortation proceeded, he became serious and attentive. The Sergeant begged Rough's pardon, as the executioners used to do before chopping off noble-men's heads. Loading his gun slowly, he said, "Rough! it isn't my fault; I am only obeying orders; Major Arnold has condemned you to be shot for warning the sentinels at night. I am sorry for you, but I must do my duty." Rough understood what the sergeant said; he was only considering whether or not the whole proceeding was a joke.

Rough had watched the loading of the gun, and had listened to the apologies of the sergeant until convinced that the affair was real, not a comedy but a tragedy. He waited until the sergeant took out a percussion cap, and began to fit it in its place; then he bounded into the air, and started at a full gallop down the long causeway leading to the bridge. The picket guard stationed there wanted Rough to explain the reason of his haste, but he would not stop to parley; rushing past the guard he scampered across the bridge, and did not stop running until he took refuge in Muzzey's tavern on the Hampton side of the bay.

Muzzey's, being outside the jurisdiction of the Fort, was a popular resort for soldiers when on pass, so Rough never lacked congenial company. Often they would whistle him away and try to coax him home. He would go cheerily along with them to the bridge and even across to the picket guard house at the other end, but beyond that he would not go. Neither bribes nor promises could wheedle him out of his purpose; and from that day to this Rough has never passed that picket line to Fort Monroe. I offer these few facts as evidence that dogs have soul and sense as well as men, and if this were better known, the lower animals would be more kindly treated than they are.

I am told that certain heathen people hold the same opinion, for which I give them very great respect. A friend of mine who had travelled round the world, once told me how he realized the presence of that sentiment in Japan. Walking carelessly along one day he saw a dog across the street sitting at his ease closely watching him, and evidently puzzled at his queer American clothes. Not in malice but in purely wanton sport my friend picked up a stone and threw it at the dog. The animal never tried to dodge the stone nor did he run away; but a look of astonishment overspread his countenance, and in the play of the dog's features my friend assured me he could see him reason thus: "I wonder what religion that man belongs to who wantonly throws a stone at

an unoffending dog. In all my life no Buddhist man or boy has ever thrown a stone at me."

There is much to admire in the religion and the hope of immortality possessed by the Indian savage,—

Who thinks, admitted to that equal sky,
His faithful dog shall bear him company."

THE OLD AND THE NEW PSYCHOLOGY.

WHEN the wonderful workings of electricity were first discovered, electricity was considered as a substance, as a kind of an ethereal fluid that permeated bodies. And the very terms used by our scientists to-day still show traces of this error. We now conceive electricity to be a certain mode of motion rapidly transmitted from atom to atom, we no longer believe in a special electrical substance that flows through bodies; and yet we retain the expression "electrical current."

The scientists of former ages were wrong with regard to the scientific understanding of the nature of electricity; but in spite of their errors they formulated various laws that held good even after the error was corrected. The idea that electricity is a current served as a simile, which in many respects is so appropriate that even now our professors have to fall back on it in their explanations and probably always will, although they have to add the special warning not to take the simile for more than it is worth.

Suppose that in former centuries you had come upon two opposed views, the one of a scientist who declared that electricity existed as a substance, and the other of a man who maintained that electricity could not possibly be a substance, and that it did not exist at all. On which side would there have been more truth? Unquestionably on the former.

Now the old psychology of former centuries considered the soul as consisting of a special substance, a kind of ethereal fluid endowed with several mystical qualities. Modern psychology, not unlike modern science in other fields, now comes to the conclusion that there is no special soul-substance; the soul is but a special form of life. The old psychologists, however, were not entirely wrong, for they committed an error that was natural in the evolution of psychological truths. Their views were after all more correct than the views of their adversaries, who, objecting to the existence of a soul substance, denied the existence of the soul altogether. The old psychologists discovered some of the laws of soul-life, and also derived from them certain principles which they laid down as rules of moral conduct and which will remain true forever.

There is a strange objection made to the new view of modern psychology. "If the soul," it is said, "is

no entity, but the form of living and feeling substance, how can you speak of the importance of soul-life? The declaration that the soul is not a substance is equivalent to the statement that the soul does not exist."

Are we to say of a flame that it does not exist because we have ceased to believe in a special fire-stuff, the *phlogisticum*, which some time ago was supposed to be a substance endowed with certain mysterious qualities that manifested themselves in the phenomenon of a flame? Is a flame not a reality also to us who know that fire is a special form of motion.

The old psychologists who to-day still form the majority and of whom many will survive for a long time to come, look upon the new view with suspicion and say that it is a psychology without a soul, that is to say, without a soul consisting of soul-stuff. So the old physicists with the same plausibility might have objected to modern physicists that according to their conception, flames are fire without fire-stuff. And is it not strange that the old psychologists arraign the modern view as materialistic? Is not rather the old view materialistic, which conceives the spiritual as a substance—a kind of ethereal and purified matter? We however regard the new view as a redemption from the cruder and materialistic conception of soul-life.

The physicians of the soul are the ethical teachers of mankind. The task of a Confucius, of a Buddha, of a Christ, was the practical psychology of soul preservation, and it is natural that experience should have taught them many important truths, which, as represented by every one of the great moral teachers, agree among themselves almost as much as arithmetic in English agrees with arithmetic in French and German. There can be no doubt that in many respects these ethical teachers, and more so their disciples, were greatly mistaken as to the nature of the soul. Nevertheless we inherited from them spiritual treasures more valuable than material wealth. By these spiritual treasures we mean chiefly the ethical truths which in the change of position caused by a progress of the science of the soul, remain intact and will find corrections in unessential points only.

The progress of psychology however is marked by the fact, that while the moral truths had to be looked upon in former times as unexplainable, and thus were supposed to be of supernatural origin, we now can show their natural growth and base them upon a strictly scientific foundation.

Modern psychology must recognize the truth that it is developed from the old psychology. Although the new view stands in one essential point in vivid contrast with the old view, the new is the legitimate outcome from the old, not otherwise than modern

chemistry is from the phlogisticum-conception; and modern psychology has accordingly the right and the duty to enter upon the inheritance of the spiritual treasures gathered by its ancestors.

P. C.

AN AMERICAN PHILOSOPHER.*

BY MADAME CLEMENCE ROYER.

For half a century England alone has developed a school of original philosophers, inasmuch as they alone regarded philosophy as a synthetic epitome of human knowledge, and not merely as an *a priori* system of logical principles, as the Germans had done, or like a system of beliefs in cognitions, that yet remain unattained, as still professed in France by our University-philosophers.

English philosophy assumes the general title of natural philosophy, because it excludes from the same the supernatural, and limits itself to the consideration of the facts of nature in their general relations or laws, and within the concatenations of their causes and effects, at the same time refraining from stepping beyond the limits of the known, otherwise than by way of legitimate inductions, that are based upon observation of the phenomena.

Contemporaneous English philosophers are often great specialists, but they do not profess to know anything beyond their own specialty, as is done by our own philosophers. For this reason Tyndall, W. Thompson, Carpenter, Balfour Stewart, Bain, Huxley, Darwin, Owen, and even Newton himself, by valid right are entitled to rank as philosophers, just as Herbert Spencer or Stuart Mill, because they all proceed from their common master—Bacon, and have preserved his traditions, that with ourselves have been lost or disregarded.

In France, and in the Latin countries subject to French influence an event disastrous to the human mind has taken place: the separation of the human mind into two distinct domains, that between themselves have nothing in common. This has been called the bifurcation of the studies. Letters were assigned to the one, and the sciences to the other side. These became like two strange countries, that no longer speak the same language, and can no more understand each other, whose citizens,—ever compelled to behold things from opposite points of view,—cannot avoid preferring contrary judgments, and mutually disdain each other, because clearly perceiving that which the other side lacks, they remain unconscious of their own particular shortcomings. By this process the human mind has been cleft asunder into two equally sterile halves; and, above all, in assigning philosophy to the domain of letters, the former forcibly has been reduced to an empty form, that never can extricate itself from its own verbal abstractions, ever flitting across the domain of purely formal principles, eternally discussing the principles of a method of cognition which it cannot apply to facts, which in reality it ignores. On the other hand, a science that is no longer regulated by the law of logic, which it disregards, observes without method, experiments blindly, concludes at haphazard, and while *a priori* condemning every hypothesis, itself unconsciously advances hypotheses, as M. Jourdain in creating his prose,—and all the more absurd hypotheses, because destitute of the critical principles and formal rules of Logic, indispensable to discuss their value.

Every scientist, who clings to a branch or to a twig of science, will gnaw at the same like a caterpillar rolled up within its leaf, until there only remains a thin skeleton; he thus believes that he may remain in ignorance of what his neighbors are doing with their own tiny fragments. All these men, while thus dissecting minute facts, while weighing, measuring, experimenting at hazard the exclusively physical activities and modalities of things, are forced not to know anything that is not seen, heard, or weighed.

* Translated from the *Revue de Belgique*.

and to measure forces, the nature of which escapes them, and matter that they ignore even more deeply, and ultimately are compelled to conclude nothing, that can serve to construct a logical system of cognition, because the ties of reciprocal causality of all the facts remain broken between all these sciences, that ignore each other, and because all the hypotheses adopted by each special category of scientists in order to explain them, among themselves are only contradictory.

All this had been luminously demonstrated by the American, Mr. Stallo, in his admirable book, "Concepts and Theories of Modern Physics."

Hence results, that if a philosopher presents our scientists with a general solution of the problems, that they have believed to be solved, each by himself separately, while yet contradicting each other, they send him away to carry back his metaphysics to the philosophers, and if the philosopher bases his inductions upon the facts of science, the philosophers in their turn send him back to the scientist.

The English, being less narrow specialists, and who, unlike ourselves, have not put the sciences on the one side, and logic on the other, so that they turn their backs to each other, are still far from having reared a perfect edifice of the synthetic knowledge of the world; above all, they are liable to reproach for their pretention to this effect, and that not having been able to complete it, nobody ever will complete it. Because they have reached one or several unknowns, they maintain that they are unknowable. This is about all, that they have preserved of French positivism, of which most of them profess to be the followers. It would have been far better, not to preserve anything at all, than maintain only a negation of it, which is as little proved, as the affirmations to which it is opposed. The Americans are bolder; although their pupils, they outstrip their masters.

Dr. Paul Carus in a recent book on the *Fundamental Problems* assumes as evident and demonstrated several solutions of the problems, that are termed insoluble, and he ventures to maintain against the English *Agnostics*, that also all the others will be solved. This is the very thesis, that for thirty years I myself have been defending against the French positivists. In reading the book of Dr. Carus, I have felt a deep satisfaction at finding again my own thought within another thought. Nothing brings greater relief to the mind, in the doubts that it still may harbor, than thus meeting with a kindred spirit, that has been evolved on another continent at the distance of ninety degrees longitude.

Dr. P. Carus, like Spinoza, and like Haeckel, affirms the unity of the substance of the world,—*Monism*. But, this unique substance at the same time is matter and spirit; or rather, it is the common substratum of the physical activities, and of the psychic activities. It follows, that all spirit is matter, but that reciprocally all matter is spirit, and that all the elementary and individualized portion of the cosmic substance is endowed with intellectual virtualities, and that at the same time it is *will* and *force*. By this side only the system of Mr. Carus is akin to that of Schopenhauer, but he deduces from it entirely opposite consequences. To him, accordingly, all substance is living, all nature is animated. Each organic individual is a momentary federation of eternal existences. There is never any creation or destruction; but under the appearance of birth or of death a perpetual series of changes.

All this in another form, more precise and concrete, I have been repeating for thirty years in speech and through the pen. All this I taught for the first time in Switzerland in 1859-'60, and it has been recapitulated in my volume "*Le Bien et La Loi Morale*," published in 1881 (Paris: Guillaumin).

I cease to agree with Dr. Carus, where he attempts to reconcile the synthetic view of the world with a remnant of Christian religiosity; for he persists in calling himself Christian. For the rest, he is Christian to a very exiguous extent; because it is easily

seen, that while he is attached to the word, he is by no means so to the thing itself. He affirms God, but he defines him as the formal law that rules the world.

There is a certain amount of concession, in thus expressing by an ancient word an idea, that is not only different, but quite contrary to that, which it evokes in all minds. For four thousand years, the equivalent of the word God in all languages, both in singular and plural, has designated a person, an individualized will, guided by ends. To deprive it of this sense, in order to give it that of law, namely, of an impersonal abstraction, of a simple relation of necessity, is to lack a certain philosophical holdness—and further more,—is to create a source of unavoidable equivocations, because in order to understand the word God in this sense, one must begin by giving it its appropriate definition.

The author himself, who does not believe either in the incarnation or resurrection of Jesus, still less in his divinity, because he denies *a priori* every miracle, yet withal persists in calling himself Christian. Why? By what right? Simply on the pretext, that he legitimately rejects, as insufficient the principles of the utilitarianism of Bentham, and inclines toward the mystical ethics of Tolstoi, that forbid all egotism, even if it does not hurt anyone. This is to be thrown from one excess into the opposite excess. Because the criticism of this morality, and of its practical impossibilities would lead me too far, I presume to refer the reader to my work "*La loi morale*," in which beforehand I have replied to Dr. Carus, and have shown, that nature from the outset in constituting every being the guardian of his own happiness, therewith has adapted the surest and shortest means to realize the sum total of possible happiness for all, that makes up the finality of the world, and the aim of moral law.

THE ETHICS OF THE NEW POSITIVISM.*

A LETTER TO THE "REVUE DE BELGIQUE" IN REPLY TO THE ARTICLE 'UN PHILOSOPHE AMERICAIN' BY CLEMENCE ROYER.

THE *Revue de Belgique* contains in its April number an article on my book "Fundamental Problems, the Method of Philosophy as a Systematic Arrangement of Knowledge." I am glad to learn that the author of the article is in sympathy with my opposition to the philosophy of agnosticism which is represented in France by the positivist school, and in Germany by Dr. Boys Reymond's "ignorabimus." My plan has been to establish a true positivism, the data of which are the facts of reality; Knowledge is the representation of facts in living beings, and the purpose of Knowledge is again its application to facts.

M. Comte is mistaken when he declares that we know neither the first nor the final causes, but only the middle between them. The real world exhibits no such difference in causality. There is but one kind of causes, and this contains the whole of causation. There is but one kind of facts in the world, such as are real facts; and all these facts are representable—also those which we do not as yet know of, those of which our philosophy does not as yet dream. All facts—theoretically considered—can become objects of experience, even those for the perception of which our senses are too blunt, because means can be, and have been, invented for rendering them indirectly observable. Such is the unity of the Cosmos, and the interconnection of all its parts that every thing has its effects upon every thing; so that for instance, if we possess no organ for perceiving the chemical rays of light, we can invent a sensitive plate on which the effects of the chemical rays are observable.

So far your correspondent agrees with me. And I trust that this kind of positivism is the only sound philosophy; it will soon be the philosophy of the future. But Mme. Clémence Royer makes objections to my position in Ethics. She says:

"I cease to agree with Dr. Carus where he attempts to recon-

* This letter appeared in the "Revue de Belgique," June 15, 1890.

cile this synthetic view of the world with a remnant of Christian religiosity; for he persists in calling himself Christian."

Mme. Royer is mistaken in this. I do *not* persist in calling myself Christian, although to a great extent I gladly accept Christ's ethics. I am in accord with the modern view of psychology, which is so admirably presented in M. Th. Ribot's books on the subject. There is no metaphysical soul-substance, there is no "ego" ("moi") hidden within or behind our thoughts which does the thinking. But our thoughts, physiologically represented in the activities of certain brain structures, are the elements of our soul. The abandonment of the "ego" is an intellectual act. Yet it is at the same time a moral act, and the ethical rules that can be derived from it have been taught by all the great moral teachers of the world, Confucius, Buddha, and Christ. If you choose to call this my attitude Christian, I am a Christian. But you might just as well call me a Buddhist, or an adherent of Confucius.

Mme. Royer is mistaken if she calls my ethics altruism. It is neither altruism nor egotism; it is both. The fundamental principle of ethics, as I conceive it, is the regulation of man's actions in accordance with the facts of nature; yet in the term "nature" I include the laws that shape human society.

The individual must give up the superstition that it is an isolated ego risen into existence out of nothing and sinking again into nothingness. It is a part of the great interconnected whole. The soul-life of an individual is the continuation of the soul-life of past generations, and it will continue to exist in the generations to come. A man when regulating his actions does not consider the present moment alone, but thinks years ahead, although the material atoms that do the thinking and acting at present will quit his body in a few days. Similarly the single individual must not be swayed by the fleeting moment only, nor by the short span of his own life, but must take into consideration the entire evolution of soul-life so far as he can penetrate into the future. He must renounce his egotism, not for altruism, but for a higher view which considers our soul-life in its relations with all soul-life, and our existence in its connection with the universe.

Concerning the God-idea, Mme. Royer maintains that God always meant a person; therefore, she concludes, that my definition of God is not tenable. Perhaps she is right. If theism is identical with supernaturalism, I must beg to be classed among the atheists. Yet I maintain that the idea of God admits of a purification so as to free it from supernaturalism. I understand by God no person, and no extramundane creator, but the cosmical order that makes this wonderful world possible. God is the immanent and omnipotent power of the universe to which we have to conform, and it is a gross superstition to call him a person, for like the law of a country which is no person, but superior to persons, even to kings and to so-called sovereigns, God is super-personal.

Whether it is justifiable to purify the God-idea in this way, I shall not decide, but I believe that the purification of religious ideas is just as much admissible as the purification of scientific ideas. Is not the idea of electricity radically changed, since the Greek sage considered it as an exclusive quality of amber? And is not the change in the conception of fire within the last century much greater than the change of meaning in the God-idea? We no longer believe that a flame consists of fire stuff or "phlogiston," but we now know it is a special mode of motion; and yet we have not discarded the word fire, although we have entirely given up its old definition. We have abandoned our erroneous notion and have adapted our concepts to a more correct representation of facts. I see no reason why we should not do the same with our religious views, especially with the central idea of religious thought, the idea of God.

PAUL CARUS.

CURRENT TOPICS

AN army composed entirely of officers is a sight worth seeing, and yet such an army marched through the streets of Milwaukee a week ago. Those gorgeous legions were the Knights of Pythias, and every man in the ranks had obtained the honors of knighthood at a price ridiculously cheap, considering the aristocratic nature of the title. The cost of this nobility is a trivial matter of twenty dollars a head. For this insignificant sum every man had won the title of "Sir Knight" and the right to wear a sword, also the privilege of tramping through the dusty streets wearing a helmet and a plume. These Knights of Pythias marched with military step to the strains of martial music that made their pulses throb with heroic bravery, while the most pleasing feature of the performance was its Pickwickian meaning. Those twenty thousand valiant knights had no intention to fight anybody, and were only "playing soldier." Happy is the land where soldiering is nothing but harmless vanity and play.

We Americans are a people of aristocratic tastes, and like the proverbial Englishmen, we "love a Lord." Although we have repudiated all titles of nobility as the relics of a barbarous age, so strong is the taint of heredity within us that unless we can be "Knights" of something or other, we are not entirely happy. If we cannot be Knights of Pythias, Knights of Malta, Knight Templars, or hold rank in any of the higher grades of nobility, we can at least be Knights of Labor, but knights of some kind we must be. This vanity for titles has become so prevalent among us that we are afraid to write a letter to a man lest we fail to address him by the title which his neighbors give him. We wish to obey the rules of etiquette, and we try to select the proper distinction from "Hon.," "Esq.," "Mr.," and a hundred others. We all agree that it would be more consistent with American dignity, and more in accordance with the genius of our political system to abandon the use of titles altogether, but none of us has courage enough to begin the reform.

The Knight Templars constitute another order of nobility. These are the descendants of the Red Cross Knights, famous in the wars of the crusades. Their mission is to rescue the Holy Sepulchre from the hands of the Saracens, but when they will start for Palestine on the next crusade is known only to members of the order. These Red Cross Knights do not wear coats of mail as the old knights did, but coats made of innocent broadcloth, and as the ancient helmet and visor would be rather inconvenient, they wear a black chapeau instead, on which is mounted the white plume of King Henry of Navarre. They wear gauntlets, not of steel, but of soft leather, on which the red cross is embroidered by the hand of some "ladye faire," and they make a very picturesque appearance on parade. They are not fierce fellows like Hugh de Bracy, or Brian de Bois Guilbert, and should they happen to meet the noble order of "Saracens," they would give them kindly greeting, instead of blowing into their ears with a brass trumpet an uncivil challenge to fight. The two orders might compete with each other in acts of mutual kindness, they might contend in drill, or something of that kind, but there would be no blood shed, except the blood of the grape, wherein they would pledge to one another friendship and good will.

The Knights of Pythias and the others, are a great improvement on the Knights of the olden time. These Knights of the Red plume and the White, are mostly respectable men, which the ancient Knights were not. The new Knight earns his own living by honest industry, as the old Knight never did. To work for a living in the days of chivalry was not a "knightly" thing to do. The man who did it was a "Churl," a "Villain," and no true Knight.

In the ranks of the old crusaders there were Knights of a hundred styles, but never a Knight of Labor. In the code of Knighthood, work was ignoble, dishonorable, and mean. The American Red Cross Knight is a man of peace; he has no intention of marching to Palestine to fight the "Paynim," even if he knows what a Paynim is, which probably he does not. The ancient Templar was a man of strife, who invaded the domain of peaceful people and plundered them, unless he got the worst of it himself, which he very often did. He lasted for about three hundred years, making himself a very disagreeable nuisance nearly all the time. To tell the honest truth, he had to be suppressed by law like the tramp. When he finally dropped out of politics and disappeared, nobody regretted him.

* * *

The amateur army of Knights of Pythias which assembled in Milwaukee to play soldier, is drilled and organized at its own expense; it costs the government nothing, and yet the nation could rely upon it with absolute certainty in time of public danger. Should the country call, those "carpet knights" would nearly all respond. They would carry a knapsack and forty rounds on a genuine campaign, tramp, tramp, tramp, as cheerily as they marched with holiday step through the city of Milwaukee. They would play their parts in real battle as readily as they played at mimic war. They are bigger, better, handsomer, and braver men than the Red Cross Knights of old. You might safely bet a "coat of mail" that those red plumed boys in broadcloth, should they meet an equal number of the ancient Knights in actual battle would whip them easily, armor or no armor, because they have more sense, character, and conscience to the squad than the old Knights ever had.

M. M. TRUMBULL.

CORRESPONDENCE.

A WORD OF EXPERIENCE.

To the Editor of *The Open Court* :—

AS A PREACHER of progressive views, the writer, a few years ago, commenced illustrating "False and True Universal Science, History, Thought, and Religion," on about 10,000 square feet of oil canvas, with the main object, "Conciliation of Bible and Science," in view. The scientific pressure soon substituted the word Religion in place of that of the "Bible." My first converting premise was the fact, that the Bible does not, nor could not, teach anything not taught in surrounding nature, and hence must stand on its own merits as all other books. This conclusion revealed a new world to me and that I had been in gross darkness, but not the grossest; for I have been an original peculiar Unitarian for years and have not held to the literal interpretation of the Bible. My peculiar views have long been watched in half suspicion by my pastors; yet I have been very daring in educating my people to a change of some kind that has been making intuitive impressions. The exact nature of the change developed in my mind a work somewhat analogous to that of *The Open Court*, only under different methods.

I am very grateful for the labors of *The Open Court*, the first clear light that has dawned in close affinity with my work.

The problem, as to the scientific basis of the 'ought' of ethics, is my special solution. That it rests on 'the immutable nature of things,' is certain; and that 'natural law is in the spiritual world,' is truly a like conclusion. What I am trying to do is to construct this fact of the eternity of law into a new science about another fact; viz., that all things move in mission cycles of analogous stages and laws, and so on in successive cycles of progression through all eternity. When this is once established, as I have reasons to believe, it can be, then the basis of the 'ought' is laid,

save in detail-requirements that can be established only by experience and irrefutable proof as it now seems. There are but few things that lie near the border-line between the 'ought' and the 'ought not,' upon which enlightened people would disagree. Perfect conduct can be brought about only by experience and enlightenment; and hence the specific requirements of the 'ought' will have to become a natural part of every one's nature; up to that time other means of peace and control will have to be used the best possible.

May *The Open Court* be of great service in all true results. I shall be happy to labor for it in all my lecture courses.

SILAS A. WURTZ.

BOOK REVIEWS.

EIN COLLEGIUM LOGICUM IM XVI. JAHRHUNDERT. Excerpts from a Manuscript in the Library of the University of Tübingen. Communicated by Dr. Christoph Sigwart. Tübingen: Laup.

[Printed as appendix to the official *Verzeichnis der Doctoren*, the recipients of academical honors in the philosophical faculty of the University of Tübingen from 1889-1890.]

Among the manuscripts possessed by the University of Tübingen there is a well-preserved copy of lectures upon the first part of the "Analytics of Aristotle," delivered between November 1565 and November 1567, by Jacob Schegk, Professor of philosophy and medicine at the above-mentioned university. Strictly speaking, there is no lack of well-preserved academical lectures from even an earlier date than this Tübingen manuscript, but irrespective of its scientific contents this manuscript would seem to possess an exceptional interest of its own. Unlike most other manuscript copies of academical lectures, it presents a vivid, realistic picture of the pedagogic methods of the time, of the quaint mannerism and rude academical sallies—although innocent of the faintest sprinkling of "attic salt" of the conventional oral delivery, and of the very corporal attitude and "pose" of the Professor before the group of students within the academical "auditorium."

Professor Jacob Schegk's lectures upon the *Organon* in the present manuscript have been written from dictation with the most painstaking accuracy by his pupil Martin Kruse, who himself at a later date became a distinguished Professor of Greek at the same university. The pupil has faithfully and literally jotted down even the Professor's incidental remarks, that have no direct bearing upon the subjects, such as "lapsa est hora," "cras absolvemus," or, at the beginning of a lecture, "paulo serius veni!" At one time the Professor has become entangled in his dialectics, and is reported as uttering: "cras emendabo, Ich hab mich selbst geirrt da;" at another time, by way of summary explanation, he indulges in the peevish remark: "Non potui praeferre hoc hactenus, etiam si iam non potuistis omnia forte intelligere; tamen cum acceperitis mea commentaria, intelligetis; Ich kann nit mit ein trachter eingesehen!" The injunctions: "Scribite, pergitte scribendo dictabo," repeatedly occur through the whole series of lectures. As regards the plan and time of the lectures, the latter were intended to be delivered on four days in the week, but there occurred the frequent interruptions of saints' days and of periodical long holidays, that caused the Professor to break off with a "post ferias revertere." The Professor concludes the first part of his lectures in the following hopeful strain: "To-morrow we shall begin the second part of the 'analytics.' I shall dictate only what is absolutely necessary. Buy therefore the commentary to the same, that is printed at Tübingen. Spareit das geht ein wenig, and do you buy that book,—et emite illum librum."

3000.

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OUR NEXT NEIGHBORS.*

BY FELIX L. OSWALD.

DOMESTIC animals, returning to a state of nature, are apt to revert to the original type of their species, but that relapse does not necessarily involve the risk of degeneration. Wild dogs and wild horses are in most essential points inferior to their well-trained relatives, but here are animals whose domestication has benefited only their captors, and whose better qualities manifest themselves best in a state of freedom. The half-wild sheep haunting the pastures of the Taurus Range are almost as swift and vigilant as gazelles; on the table-lands of tropical America the descendants of sluggish breeds of black cattle become active, graceful, and bold.

Nations, too, exhibit those contrasting tendencies of variation under the influence of independence. In Scandinavia the abolishment of monarchical institutions might result in the development of a model republic; in Cuba the unconditional emancipation of half a million negroes would result in a pandemonium of anarchy and vice.

Freedom, seconded by favorable climatic conditions, will rarely fail to evoke the original characteristics of a noble race, even after centuries of degradation, and it would be strange if those influences should not sooner or later assert their tendency in favor of the Spanish nation. The founders of the Spanish monarchy, the adventurous Visigoths, were, on the whole, the noblest and manliest race of the early Middle Ages. Their so-called kings were only the chief administrators of laws embodying many of the best features of our federal republics. Feudalism, in its ugliest form, never gained a foothold on the soil of Spain, and for more than two hundred years (348-589) the Spanish Goths remained stout partisans of the doctrine of Arian rationalism. Then came the invasion of the Moors and the long era of race wars which tended to identify the Christian creed with the cause of national independence, and thus enabled the clergy to acquire that influence which afterwards became the basis of the worst despotism ever developed in the climate of Europe.

The discovery of a New World at first seemed only to extend the power of the priesthood to a larger terri-

tory; but the transatlantic colonies of Spain comprised two regions which, even without the success of a political insurrection, would eventually have proved auspicious to the hope of regeneration: The southern fourth of the South American Continent and the cool table-lands of Mexico.

For about thirty years after the establishment of the Mexican Republic the party of conservatism contrived to maintain its practical ascendancy, but its power was wrecked in the storm provoked by its alliance with a foreign usurper, and since that time the reforms of liberalism have progressed at a rate never equaled in any country of Christendom since the time of the Protestant Revolt.

Ecclesiastic tribunals have been abolished; nearly \$300,000,000 worth of church property has been confiscated; bequests made under the influence of spiritual advisers can be legally contested by the natural heirs; absolute religious freedom and equality before the law have been guaranteed to all Christian and non-Christian sects. Civil marriages have been legalized, and the binding force of monastic vows has been rescinded. Sunday-laws have been limited to a statute making it unlawful for non-military authorities to compel individuals or corporations to perform on legal holidays any kind of work which could have been safely postponed to the next day. In other words, if a master-carpenter forces his apprentice to mend a broken bench on Sunday, he may incur the risk of a damage suit, but private laborers cannot be prosecuted for tilling their gardens or fetching in a load of hay on Sunday, merchants attending to their own shops may keep open the week round; and above all, Sunday amusements are not only considered perfectly legal, but are legally encouraged in every larger city, "to keep the idle multitude from mischief," as a Pueblo magistrate of my acquaintance expressed it.

Compare those triumphs of rationalism with the present state of affairs in Anglo-America. Only a few weeks ago C. W. Cook, of New Haven, Indiana, was indicted and fined for having allowed an *automatic* cigar-machine to work on Sunday. For a similar offence R. M. King, of Obion County, Ohio, was convicted and fined \$75.00. In Grand Rapids, Michigan, the members of a base-ball club were arrested like thieves for playing on Sunday. Every place of busi-

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ness and recreation in South Norwalk, Conn., is closed on Sunday by order of the police. In Baltimore, Philadelphia, Atlanta, Cleveland, Pittsburgh, Newark, Omaha, and Minneapolis, arrests and imprisonment of visitors of public picnic grounds and other places of recreation, are matters of weekly occurrence. Some twenty Seventh Day Adventists were *persecuted* (as a local paper expresses it with unintended suggestiveness) and fined in Georgia and Arkansas for observing the Sabbath on the last, and not on the first, day of the week. Postmaster General Wanamaker stopped Sunday mail-service, and President Harrison, by a similar *ordre du Mufti*, has tried to enforce the religious observance of the Christian Sabbath by the officers and men of the army and navy. In Coaling, Alabama, a freethinker (Mr. H. Y. Ward), for being too honest to deny his convictions, was formally deprived of his civil rights, and refused the privilege of using the courts; and the State University of Illinois refused to allow a student to graduate, because he would not attend chapel.

A few years ago the Cincinnati Convention of the "National Reform Association" adopted the following resolutions:

"*Resolved*, That it is the right and duty of the United States, as a nation settled by Christians, a nation with Christian laws and usages—to acknowledge itself in its written Constitution as a Christian nation.

"*Resolved*, That recognizing the importance of this subject, we pledge ourselves to present and advocate it until the nation shall declare its Christian character." President Brunot defined the chief object of the Association in still plainer terms: "Such an amendment to the Constitution of the United States as will suitably acknowledge Almighty God as the author of the nation's existence and ultimate source of its authority, Jesus Christ as its ruler, and the Bible as the supreme rule of its conduct, and thus indicate that this is a Christian nation, and place all Christian laws, institutions, and usages on an undeniable legal basis in the fundamental laws of the land."

The progressive frankness of that party seems to indicate a rapid improvement in their chances of success; but their plans of "reform" may be destined to founder against an unexpected reef—a leeward contingency apt to be overlooked by upturned eyes, but announcing its proximity by more and more visible breakers, viz., the establishment of a Pan-American Federation of Republics. With or without the formal annexation of Mexico, Spanish-American influences will soon be felt on this side of the Rio Grande, and there is no doubt in which way the descendants of the Unitarian Visigoths, will repay our nation the initiative of political reforms. Annexation will only hasten the progress of that reaction. Conquests have thus often

led to results not contemplated in the programme of the conquerors: In Austria, for instance, the incorporation of Hungarian elements has proved a leaven of liberalism, and it is equally certain that the conquest of Poland has infected the Russian Empire with the seeds of revolutionary tendencies.

The regeneration of the Latin race will, however, be effected chiefly on the elevated table-lands of New Spain, as the Spaniards called their favorite American province. In the lowlands railways, telegraphs, and all other aids to social interaction, will hardly counteract the enervating influence of a languid climate, combined with an abundant and almost gratuitous food-supply.

"Cheapness and abundance of food," says Henry Buckle, "have invariably led to the same results in countries where the mildness of the climate exempts the inhabitants from the necessity of a constant struggle against the hostile forces of nature. . . . In Egypt, as in India, a warm climate and the fertility of the soil brought into play the same laws, and have naturally followed the same results. In both countries we find the national food cheap and abundant: hence the labor market was over-supplied; hence a very unequal division of wealth and power; and hence all the consequences which such inequalities will inevitably produce. In Africa generally the growth of population, though on the one hand stimulated by the heat of the climate, was on the other checked by the poverty of the soil. But on the banks of the Nile this restraint no longer existed. The Egyptians were not only satisfied with cheap food, but they required that food in comparatively small quantities. The lower orders at the same time were able to rear their offspring with greater ease, because, owing to the high rate of temperature another considerable source of expense was avoided. . . . Diodorus Siculus, who traveled in Egypt nineteen centuries ago, says that to bring up a child to manhood did not cost more than twenty drachmas (about three dollars); a circumstance which he justly mentions as a cause of the enormous populousness of the country. . . . Dates, like rice, require but little labor and yield abundant returns, while they occupy so small a space of land in comparison with the nutriment they afford."

Yet in both respects the banana, the chief food-plant of the Mexican coast-plains, far exceeds both rice and date-palms. Rice is from three to four times more productive than wheat; but Humboldt estimates that the same land, producing wheat enough to feed one man, will feed twenty-five, when planted with bananas, and that bananas on a surface, yielding one thousand pounds of potatoes, will yield forty-four thousand pounds of a more nutritious food.

"In Egypt," says the author above quoted (Buckle's

History of Civilization, p. 66), "the industry of the whole nation being at the absolute command of a small part of it, there arose the possibility of rearing those vast edifices which inconsiderate observers admire as a proof of civilization, but which in reality are evidence of a state of affairs altogether depraved and unhealthy."

Is it impossible that the same correlation of causes and effects should have enabled the prehistoric rulers of southern Mexico, to sacrifice the lives of millions of their subjects in the construction of those giant-temples which have so often been compared to the pyramids of Egypt? In Uxmal (western Ucatan) alone there are buildings which must have employed vast armies of masons and sculptors for scores of years, and some of the monoliths of Palenque may have cost as much labor of transport as that pillar-stone, which, according to Herodotus, occupied two thousand men for three years in the work of its removal from Elephantine to Sais.

(TO BE CONTINUED.)

INEBRIATE PLANTS AND ANIMALS.*

BY CARUS STERNE.

THE conclusions of philosophy were frequently far in advance of our actual knowledge of nature. Modern chemistry at last has proved, that the bodies of plants and animals consist essentially of the same fundamental elements; that the living, formative element—the protoplasm—in the most varied types of living beings exhibits a similar composition, and, moreover, that the most startling conformities are displayed among the various vital processes of nutrition, growth, respiration, propagation, etc. Already *Giordano Bruno* had boldly advanced the theory, that the spiritual disposition in "plants, oysters, flies, and men," fundamentally is the same, and that outwardly it is only able to express and unfold itself according to the organic outfit of their bodies, (in the peculiar structural organization of the instruments and limbs for their various activities). Even a rational soul, says Bruno, if confined within the body of a serpent, cannot outwardly display itself otherwise than by hissing, just as it could only propel its body through creeping and wallowing, while other animals can run and fly.

In such views of this kind, however rudely they may have been expressed, there was, at least, implied an anticipation of those great truths, that recent research has brought into acceptance. These notions contain an early recognition of the unity of all life, and of the evolution of all bodily as well as spiritual faculties, the latter being inseparable from the former. We know that plants, like animals, seek and select the elements of nutrition in and above the earth, turn their leaves

towards or away from light, open their petals and close them; that many will turn with the sun, while others seek support within reach, in order to grow upwards; that some others, by aid of their leaves, catch live animals, and suck them; some plants, at any rough contact, will coyly retire. In this connection, plants that are sensitive, have always aroused a general interest, but to find sensitive plants, it is not absolutely necessary to journey so far as to the Tropics, because in our own meadows we find hundreds of herbs, the stamina and staminal tubes of which rapidly move, or contract, if any crawling insect or strange body touches them, as is the case with the barberry and blue-bottle, and with their numerous kindred plants. All these plants, accordingly, possess something in common with animals, which enables them to utilize in the best possible manner the given relations of their standing-place, some, by lengthening their young shoots, and by turning their leaves, until they reach the light, and to the best advantage utilize it, and others by enticing insects, or catching them for food, or to provide themselves with pollen from other flowers. The peculiar capacity, which is active in all processes of this kind, and which is common to all living beings, is called irritability.

Formerly it was believed, that the susceptibility of organic beings to any kind of irritations, was connected with the possession of nerves and ganglions; and imbued with this notion Erasmus Darwin—the grandfather of the reformer of the science of biology—particularly sought for both these organs in sensitive plants, in the study of which he had been deeply engaged, assuming that also in other plants each last shoot must be provided with a small ganglion, because they all were sensitive to light, heat, humidity, and many also to contact. We know, moreover, from numerous observations, that have been made of beings on the lowest stages, that susceptibility to physical and chemical irritations is an immediate quality of living substance, and that beings which, according to a common expression, only consist of a minute drop of protoplasm, with or without cell-integument, and which do not show the slightest trace of nerves, or even of sense-organs, nevertheless are subject to impressions of light, smell, taste, and heat, just as if they had been provided not only with nerves, but even with eyes, nose, tongue, and feelers. The amoeba, which in a resting position is of a roundish form, stretches its pseudopodia into the direction, from which the water conveys particles of palatable matter, and quickly withdraws them, if struck by a sudden, strong, irritation of light, by an electric or any other shock; several of the lowest animal organisms creep, even against the direction of gravity, towards the breath of

* Translated from the German by J. P. S.

humidity, that glides across their bodies; the cells of propagation of lower animals, while moving freely about in water, will paddle and float as monothalamous alga and infusoria towards the current of light and nutrition, just as grass-blades within a dark box, without possessing eyes or nerves, point exactly toward the ray of light, that through a narrow chink might penetrate into the dark partition. But, if the beneficent irritation of light becomes too strong for these beings, in such case, just as before it had been sought, light is then at once avoided.

Now, it is scarcely a matter of doubt, that this susceptibility to external influences, which frequently expresses itself through perceptible movements, whether in following or in avoiding the former, represents the fundamental phenomenon of that, which we designate as soul-disposition and it seems entirely indifferent, whether these irritations are received by the whole surface of the being, or through particular entrances; whether they are immediately propagated into the corporeal mass, and forthwith provoke a reaction, corresponding to the purpose, or beforehand are carried through the nerves to a central organ, which thereupon calls forth the same activities.

Here also, in a purely general way, we might associate with the above views the question to the effect, whether this fundamental phenomenon of irritability in all living beings can be referred to the same fundamental basis, and to identical processes?

When a chemist wishes to ascertain, whether two different elements, that in a certain respect show a similar relation, for example, whether two minerals contain the same fundamental elements, he usually applies a re-agent, that is, a kind of touch-stone or testing-fluid, in order to convince himself of the similarity or difference of the constituent parts in question, by means of the equal or different reaction, that takes place in both instances. Now, the advanced science of the present day has discovered, that not only there exist re-agents for the particular chemical elements and their combinations, but that re-agents can be found also for the different vital processes. The Munich natural scientists Löw and Bokomy, a few years ago, discovered a "re-agent upon life," or on the living protoplasm, and another physiologist, P. Ehrlich, quite recently has discovered, that in Methylene blue,—which tinges blue the nerves of sensation, but on the contrary leaves untinged the nerves of motion,—we possess an easy means of distinction for sensitive and motory nerve-terminations.

We have also known for a long time similar re-agents against that irritability, which we have designated as the fundamental activity of the soul, drugs, which old medical science, starting from the above-mentioned wrong view, that irritability everywhere presupposed

nerves, used to call nervines, or, neurotics. Neurotics, such as alcohol, nitrous acid gas, ether, chloroform, musk, and a number of other drugs particularly belong to two classes; those of the one increase the irritability of the feeling parts, those of the other weaken it, or even temporarily stun it altogether; they effect unconsciousness and insensibility. Sometimes the same drugs, despite its contrast, can produce both effects successively. In this manner nitrous acid gas, ether, and chloroform, at the beginning of their inhalation, at first produce a kind of intoxicating irritation, and this inebriation, the influence of which can be broken, under given circumstances, is so pleasant, that the former combination has been designated by the name of laughing-gas, while the inebriation from ether with many people may become an irresistible craving. I myself have known a highly gifted, and a respectable young man, who to such extent became addicted to the charm of ether-intoxication, that in the end he succumbed to the fatal habit. The initial excitement of the nervous activity by means of the aforesaid drugs, through re-iterated inhalation, is soon followed by a more or less complete insensibility, even to the most painful sensations, and I must add, that this insensibility in no manner must be attributed to the unconsciousness resulting from action upon the central organ, but that all the conducting channels of sensation are being drawn into fellow-sympathy. When the action of the drug causing insensibility, through external application is limited to a definite sphere of nerves, even painful operations can be performed, without disturbing consciousness.

If now we apply the aforesaid "re-agents upon soul-activity" to animals, it will be shown, that they stand in exactly the same relation as human creatures. Not only dogs, rabbits, birds, and vertebral animals by these same medicines can be thrown into the same condition of insensibility (anæsthesia), but likewise invertebrated animals like beetles, flies, butterflies, etc., when placed into bottles filled with ether or chloroform-vapor, soon become motionless and insensible, but when brought into fresh air, if the action has not lasted too long, wake up again and fly away. But also the above-mentioned simplest phenomena of motion through irritation of light of the lowest vegetal and animal forms (algæ, infusoria, spores and cells of propagation), according to the observations of Rosbach and other investigators, are at once suspended through a continuous duration of the aforesaid influence.

For almost fourteen years it has been known, that ether and chloroform produce the same effects of drowsiness upon the irritability of sensitive plants as upon animals. A sensitive plant, that is put with

a few ether or chloroform-sponges beneath a glass-bell, soon ceases to show the accustomed sensitiveness to contact; it can be seized rudely, even shaken, yet without closing its leaves, or lowering its branches. A sun-dew plant, treated in the same way, ceases to catch insects, and Venus's fly-trap, the leaves of which otherwise briskly clap together at the slightest contact and seize upon the irritating body, is likewise rendered insensible so long as the torpor lasts. The same applies to the irritability of blossoms, and when the barberry stands in bloom, one can easily verify by experiment, that the stamina which at other times move briskly toward the pistil by the slightest touch at their foot will, no longer do so, if for a few seconds they are left beneath an inverted glass together with a small ether-sponge. The uniformity of the action of these neurotics on plants and animals is so complete, that the aforesaid transient condition of excitation, which chloroform and ether produce in man, before insensibility takes place, was verified by Professor Pfeffer also in the case of chloroformed mimosas.

From this uniform attitude of higher and lower animals, of plants and protista towards the same re-agent, we can with still greater probability conclude the kinship of the sensitive disposition in all living beings, because certain otherwise strongly acting drugs, and medicines, by no means always produce the same effect in different living beings. We see many insects, that as grubs feed upon plants, which to ourselves are poisonous, for example, the caterpillar of the wolfs-milk moth exclusively feeds on the wolfs-milk plant, that is swelling with acid milk, but to us, after a continued gathering of its leaves, this same plant causes painful blisters on the hand, and taken inwardly acts like acute poison. In the same manner berries, seeds, and herbs, that are extremely noxious to man, will agree with numerous birds and mammals—with goats, for example, the meadow-saffron to such an extent, that their milk can act as poison upon children.

In cases of this kind it might be assumed, that the animals in question gradually had accustomed themselves to certain poisonous substances, just as man accustoms himself to a variety of dangerous drugs, for example, to morphine; but on the other hand many animals will exhibit a remarkable insensibility to poisons, with which they never before came into contact. Thus, for example, different gases, which immediately produce a deadly effect upon man, as carbonic oxide, carbonic and sulphurated water, etc., exert only a slight degree of virulence upon many insects, and particularly the oldest insects—the *orthoptera* (straight-wings) are said to be very insensible to this kind of influences, and therefore, as maintained by Oswald

Heer, they probably were able to live in the atmosphere of the carboniferous age. But also higher insects, as every collector knows, display very different degrees of power of resistance to poisonous vapors; while some die, others for whole hours can live in the identical atmosphere. Even many of our domestic animals, for example horses, can resist an extraordinary large number of strong poisons, such as antimony and arsenic compounds, and frequently we can explain these strange facts through differences of organizations because, for example, carbonic oxide gas must be incomparably less noxious to animals, that possess no red blood corpuscles. From the similarity of the effects of such essentially different neurotics upon plants and animals of every kind, we can the more definitely judge of the kindred nature of the irritable and sensitive elements in all these living beings.

[TO BE CONCLUDED.]

THE ORIGIN OF REASON.

BY T. BAILEY SAUNDERS, M. A. (OXON.)

ROMANES ON THE ORIGIN OF THE HUMAN FACULTY.

THE theory which places the origin of the human faculty in an uninterrupted and homogeneous development from the lower animals, ordinarily rests on arguments which have very little to do with the considerations adduced by Mr. Wallace, and set out in brief in the previous section. The advocates of this hypothesis even go farther, and object *in toto* to any such statement of the case. No fair comparison can be drawn, they would probably argue, between certain sporadic and exceptional manifestations of the human mind in a very high state of its development, and the faculties, whatever they may be, which are exhibited by our animal ancestors. The by-products of this extremely advanced state of mental evolution are not the data from which the argument should start; for the argument from continuity, they say, will have no meaning unless its illustrations are taken, not from the highest, but from the lowest state of the human faculty, where the continuity, if any, will have a chance of being observed.

Of course no one can object to the consideration of any argument at the point at which it has most force, or of the argument from continuity where it is most applicable, that is to say, as high up in the scale of animal intelligence and as low down in the scale of human intelligence as possible; but any success that argument may have at this point must be afterwards tested by applying the same argument to the later development; and we must not leave out of sight that the argument from continuity, even if found to be apparently sufficient to account for the transition from

animal to human intelligence, will break down if it does not also account for the highest manifestations of the human faculty. If any hypothesis is framed which disregards or throws no light on these phenomena of a later stage, it is surely the outcome of a failure to understand the very conditions of the problem.

The latest phase of the question, and in some respects the most important and painstaking contribution to the theory of evolution of mind by a continuous process of development, is that presented in Mr. Romanes's recent work on *Mental Evolution in Man*,* a sequel to a previous work on *Mental Evolution in Animals*. It is interesting to observe that this volume, though published a little more than a year ago, has already become a bone of contention; for it is an indication of the fact, that the controversy still prevailing on the theory of evolution is limited, at any rate in its more important aspects, to the question of the origin of mind. Mr. Romanes claims to present 'an exposition of the principles which have probably been concerned in the Origin of Human Faculty,' in other words he attempts to trace every step in that continuous process by which the human intellect has been evolved. The considerations which, as we have seen, are regarded with so much importance by Mr. Wallace, are conspicuous by their absence from Mr. Romanes's book, where the conclusions drawn are affirmed to rest entirely upon psychology and philology, that is, on the knowledge we have, first of the nature of the mind itself, and secondly of the nature and history of language.

Now in this attempt a strong presumption is from the first made out, and perhaps rightly made out, in favor of the position to be proved; and though the question is afterwards to be tested carefully by the last results of the sciences of psychology and philology, the whole weight of an argument from analogy is thrown into the scale, as it were, before the inquiry commences. What more natural, asks Mr. Romanes, than to start with this presumption, when it is admitted that the process of organic and mental evolution has been continuous throughout the whole region of life and of mind, except, as his opponents say, in the mind of man? 'It is improbable,' says he, 'that an interruption should have taken place at the terminal phase.' In this way the burden of proof is from the first thrown upon his opponents. But let us dwell no longer on the dangerous ground of analogy than is necessary to remind Mr. Romanes that the terminal phase in the brute is the initial phase in man, and that the subsequent progress of mind, as has been shown by Mr. Wallace's argument, is obviously not governed by the law which applies to the physical organism of

animals. Let us proceed at once to an examination of the question on its own merits; let us examine the constitution of our minds and compare the results we obtain with what we can observe in brutes.

For it is with a difference of mental endowment that we have to do, a difference which Mr. Romanes recognizes in common with every one who has given his attention to the matter. It is a difference which we need not go to philosophers to learn. The rough language of every day expresses a similar distinction by saying that the man thinks and reasons, and that the brute does not.

Now what do we mean when we use these words *thinking* and *reasoning*? and how far are we right, or indeed are we right at all, in asserting that no animal but man thinks or reasons? By thinking and reasoning we obviously do not mean every mental process whatever. Perceiving, dreaming, painful and pleasurable feelings, and the like, are all states of consciousness with their seat in the brain; and these are mental processes common alike to brutes and men. They involve a faculty of attending to the impressions of sense, of receiving individual experiences of external objects, in simple language, of being affected by the things about us. It is also a matter of common observation that many animals are possessed of a faculty which cannot be distinguished from memory, and that both in their case and in ours, when the object which affected the sense is no longer present, an impression or memory of it can still remain and be afterwards revived; though how this takes place, either in their case or in ours, is perhaps only one degree less inexplicable than the process by which external objects affect us at all. No one can object to the statement that these affections of sense are not so much thinking or reasoning as the materials on which thought and reason are exercised.

Inference is another mental process which many people assert to be within the power of the lower animals, and certainly no one can refuse the title of thinking or reasoning in some sense to certain mental acts, which naturalists tell us they have observed in animals, acts such as hesitation and the ultimate adoption of a conclusion which a man himself might have taken under the circumstances; in some respects, even, it cannot be denied that in what is called 'practical inference,' many animals far surpass man.

Shall we say, then, that ordinary language is incorrect in making the difference between men and other animals to consist in the presence or absence of thinking or reasoning? Let us see if there is not a mental process which more appropriately than any we have been considering deserves to be called thought or reason, and which is to be found in man alone.

That this is the power of *abstraction* which marks

* *Mental Evolution in Man: Origin of Human Faculty*, by George John Romanes, M. A., LL.D., F.R.S. Kegan Paul Trench & Co., 1888.

man off from other animals is, as Mr. Romanes himself admits, a matter of common agreement amongst psychologists of every school; and he quotes an important passage from Locke as containing the clearest enunciation of this truth. 'The having of general ideas,' says Locke, 'is that which puts a perfect distinction betwixt man and brutes,' and speaking further on of brutes, he adds, 'it seems evident to me that they do some of them in certain instances reason, as that they have sense; but it is only in particular ideas, just as they received them from their senses. They are the best of them tied up within those narrow bounds, and have not (as I think) the faculty to enlarge them by any kind of abstraction.'

Now what does the power of abstraction do for us? and if it is that which distinguishes us from brutes, in what manner does it manifest itself? In other words, how are those general ideas, of which Locke speaks, formed, and what is their use?

We know, of course, that the affections of sense, our individual particular experiences, are able to leave an impression on our minds, and that, when a number of individual experiences occur, causing our senses to be affected in the same or a similar way, this power of abstraction enables us to combine in one general idea all that is common to these individual experiences. The method of this power of abstraction is one of the mysteries of our existence; we do not know in what way it works; whether, for instance, we form our general idea by our strength in separating off that which occurs repeatedly in the course of our experience, or by our weakness in being able to take little or no account of that which is only occasionally present. It is this power of abstraction which gives us our mental superiority. By its agency we are raised out of the sphere of our sensuous experiences into the realm of thought; or, in Platonic language, we become free from the bonds of sense and attain to the contemplation of ideas.

Let us see exactly what it is we do in this process of arriving at general ideas, and how this wonderful power manifests itself. Let me have presented to me several particular experiences, each able to affect my sense of sight in a similar manner, let us say, by appearing *red*. I see, for instance, the red cloth on the table at which I write, the red geranium at the window, and the red sunset in the sky beyond. I take whatever is common to these sensuous experiences or impressions, the glow from the sky, the color from the flower, the particular shade in which the cloth has been dyed, and I consider this common feature by itself. By this means I have given red an ideal existence, that is to say, I have separated it from the objects of which it seemed to be a part. This I can do in one way only,—by giving it a *name*. This qual-

ity of appearing red, I can separate off, by, and in language alone. Red apart from a red object has no existence except for my mind; and there it can exist only when fixed and determined by a name. In plain words, this faculty of abstraction exists only, and can exist only, in and by its manifestation, that is, in language.

Abstraction, then, consists in this process, this activity of our minds, by which we pass from a particular experience, a percept, to a general idea or concept. Starting from an experience common to us and to the brutes, we pass into a mental sphere whither no other animal can follow us; and until a brute can use language, what is not only necessary for the formation of general ideas, but which, 'used in its true sense, always implies their presence, we shall deny that brutes can think or reason. These general ideas once attained, the progress of thought acts by bringing them into relation one with another; and by this simple process of combining and separating the whole of our intellectual wealth has been accumulated.

Between particular ideas or percepts and general ideas or concepts there is thus a wide gap, a gap which can be bridged over only by that inexplicable power the mind has of binding together the impressions of sense, a power which we express, even if we do not know it, every time we use the word *intellect*. For intellect is nothing more than *inter-lect*, that is interlacing or combining.

The whole gist of Mr. Romanes's argument rests on the interposition, midway between the percept and the concept, of another process, a kind of stepping-stone by which we can rise from the one to the other; and by throwing light on this intermediate stage, he claims to make it easy for us to see how, in the evolution of mind, we pass from the domain of sense to the realm of general ideas.

Now it is obvious that, if, as Mr. Romanes wishes to make out, there is a continuous evolution from a percept to a concept, an evolution which explains the descent of human intelligence by modification from the psychical phenomena of lower animals, it does not help us much to make the argument start by asserting the existence of the very link which has to be proved. And Mr. Romanes's method is to assert the existence of that link, to call it a *recept*, as distinguished from a percept and a concept,—a *recept* because it is what is *imparted* to us by the *logic of events*. This link once posited, we see it applied with a thorough-going belief in its efficacy to explain the appearance of all those psychical phenomena for which we have hitherto in vain sought to account by any process of development. That is to say, it is made to bridge over the gap not only between percept and concept, but also between indication and predication, and between conscious-

ness and self-consciousness. The germ of a conceptual name, according to this argument, is to be found in a 'receptual' name; the beginnings of predication in 'receptual' predication; the origin of self-consciousness in 'receptual' self-consciousness.

Mr. Romanes introduces us, in fact, to the recept as an intermediary between our old but often divided friends, the percept and the concept. But on seeing a little more of this intermediary, we discover that, though bearing a new and strange name, it is in reality also an old acquaintance. It is that confused mental image, of which Mr. Galton gave an ingenuous illustration or metaphor in his 'blended photograph,' where by subjecting a sensitive plate to several faces more or less resembling one another, he obtained a composite picture intensifying the similar features of all, while the points of difference presented a blurred or undefined appearance.

It is by a similar process, argues Mr. Romanes, the abstraction works before it reaches the stage at which a concept is formed, that is, so long as it is only a recept. This recept, in other words, comes into being very much after the manner of the composite picture; the receptual image is *imparted* to the mind just as the common impression resulting from several faces is imparted to the sensitive plate. It is, of course, only by a very rough and incorrect use of language that this intermediate idea can be described as an image of a *passive* kind, which can be imparted, in opposition to the concept, or the image in the case of which the mind is *active*; for in no class of ideas can the mind be said to be passive and least of all can it be said to be passive when it attempts to rise above the domain of direct sensuous experience, a process which by the hypothesis must take place in the formation of concepts. A recept does not rise above sensuous experience, unless it is in the nature of an abstraction; and unless in this process the mind be active, it is an 'abstraction' in which nothing is abstracted.*

[TO BE CONTINUED.]

FEELING AND MOTION.

In physiological text-books there often occurs the misleading expression "change of consciousness into will" or of "feeling into motion." This appears to suggest the interconvertibility of motion and feeling

and has prompted philosophers to propound mechanical explanations of the origin of feeling. All these explanations were failures, for the foundation upon which they rested, namely, the interconvertibility of motion and feeling is an error. Motion and feeling are radically different in their nature. Motion can never be transformed into feeling, nor can feeling be transformed into motion.

Before we proceed let us note that feeling and motion, although quite different in their nature, are not separate realms of existence. There are no feelings that exist by themselves; feelings are states that accompany certain motions. Says Ribot in his "Psychology of Attention":*

"... The intermission in an apparent continuity alone renders possible any long attention. If we keep one of our eyes fixed upon any single point, after a while our vision becomes confused; a cloud is formed between the object and ourselves, and finally we see nothing at all. If we lay our hand flat upon a table, motionless, and without pressure (for pressure itself is a movement), by slow degrees the sensation wears off, and finally disappears. The reason is, that there is no perception without movement, be it ever so weak. Every sensorial organ is at the same time both sensitive and motory. As soon as absolute immobility eliminates one of the two elements (motility), the function of the other after a while is rendered null. In a word, movement is the condition of the change, which is one of the conditions of consciousness."

For the sake of clearness we shall distinguish between feeling and sensation. By sensation we understand a process of nervous irritation which is perceived. By feeling we understand the state of awareness only, that accompanies the nervous commotion of a sensation. Sensation is a certain motion accompanied with feeling. Feeling is that part of the sensation which is no motion; the word feeling signifies that intangible something which, we trust, every animal being knows from experience. Feeling is entirely different from motion and can be expressed in terms of neither matter nor motion. Feeling is not material and it is not mechanical, i. e., it is not motion. It constitutes something *sui generis*.

By saying that feeling is neither material nor mechanical, we do not maintain that it exists by itself. Feeling is real as much as are matter and motion. In contradistinction to the objective reality of material things, we may call it subjective reality. Its existence is not proved by external activity but by the internal state of awareness. Its reality accordingly is most immediate and direct, so that it would be ridiculous to doubt it. Indeed there have been philosophers who doubted the existence of the material universe and its mechanical action, yet these skeptics did not deny the existence of feeling.

Professor Clifford in his excellent essay on the 'Na-

* English translation published by the Open Court Publishing Company, p. 17.

* By a somewhat parallel argument, M. Binet, in a most ingenious little essay, *La Psychologie du Raisonnement* (Felix Alcan, Paris, '96), attempts to bridge over the gap between perception and judgment. All acts of judgment are by M. Binet's explanation reduced to the level of perceptions, and exhibit an analogous method, i. e., they are both fusions of images, in the case of perceptions, of sensations; in the case of judgments, of concepts. Mr. Romanes claims that this fusion of sensations expresses what he means by a receptual image, and that the fusion of perceptions gives rise to what are ordinarily understood as concepts. M. Binet, however, admits that this explanation, which refers both receptual and conceptual images to an excitation of the same sensory centre is only 'a transposition into physiological terms' of a psychological process which is itself inexplicable (p. 117).

ture of Things' in themselves, distinguishes between object and eject. He says:

"There is the external or objective order in which the sensation of letting go is followed by the sight of a falling object and the sound of its fall. The objective order, *qua* order, is treated by physical science which investigates the uniform relations of *objects* in time and space.

"However remote the inference of physical science, the thing inferred is always a part of me, a possible set of changes in any consciousness bound up in the objective order with other known changes."

The objective order is represented by physical science as a system of motions that follow one another according to strict laws. What now is an eject? Professor Clifford says:

"There are, however, some inferences which are profoundly different from those of physical science. When I come to the conclusion that *you* are conscious and that there are objects in *your* consciousness similar to those in mine, I am not inferring any actual or possible feelings of my own, but *your* feelings, which are not, and cannot, by any possibility become objects in my consciousness."

"... These inferred existences are in the very act of inference thrown out of my consciousness, recognized as outside of it as *not* being a part of me. I propose, accordingly, to call these inferred existences *ejects*, things thrown out of my consciousness to distinguish them from objects, things presented in my consciousness, phenomena."

Let us represent the processes observable in the objective world by Italic letters. What we call things or occurrences are either simultaneous or successive groups of *A B C, R S T*, etc. Among these groups there is one *I K L* which is called our body; and some motions of *I K L* are accompanied with feelings. Now for the sake of distinction let us represent feelings with Greek letters. We find that certain *I K L* are accompanied by $\iota \kappa \lambda$.^{*} A certain motion is accompanied by a corresponding feeling, so that as far as certain activities of our body are concerned, there appears a perfect parallelism. If we consider our body as a mechanism, we find only motions and nothing but motions. The chain *I K L* is uninterrupted. If we consider ourselves as pure mind and nothing but feeling, we find only states of consciousness and nothing else. We find no motion.

Our fellow men, and also animals, being endowed, as we believe, with feeling, are, so far as we can observe, other bodies, and their lives represent such chains as *I' K' L', I'' K'' L'',* etc., which, as we suppose, are accompanied by $\iota' \kappa' \lambda', \iota'' \kappa'' \lambda'',$ etc. These series of $\iota' \kappa' \lambda', \iota'' \kappa'' \lambda'',$ etc., are not directly observable. They are what Clifford calls "ejects."

If physiologists say that a change of motion into

* The method of employing a series of Italic letters to express objective realities, and a series of Greek letters to express subjective realities or feelings, (*A B C, R S T*, representing objects, *I K L*, our own bodies, $\iota \kappa \lambda$ states of consciousness) was suggested to me by reading an article of Professor Mach on the Analysis of Sensations. However, Professor Mach's application is different.

feeling takes place, they can mean only that a certain motion is transferred, which now is and now is not accompanied with feeling. It is, however, a loose way of speaking. Instead of saying:

$$H \ I \ K \ L \ M \ N \\ \iota \ \kappa \ \lambda$$

where *H* is the motion producing a sensory irritation and *M* muscular motion, *N* the movement of an object effected by muscular motion, *I K L* being accompanied by $\iota \kappa \lambda$, they say:

$$H \ \iota \ \kappa \ \lambda \ M \ N.$$

Thus they jump from one series into the other. The method is incorrect and can be considered pardonable only in so far as $\iota \kappa \lambda$ appear to us for certain purposes of much greater consequence than *I K L*. The group *I K L* is called soul or mind only in so far as it is accompanied with $\iota \kappa \lambda$.

The question now arises: How can we account for the sudden appearance of feeling. It cannot be explained as a transformation of motion. The interconvertibility of motion and feeling must be rejected, and Clifford, in contradistinction to all philosophers who try to explain everything from matter and motion, most emphatically declares:

"To say: 'Up to this point science can explain,—here the soul* steps in,' is not to say what is untrue, but to talk nonsense."

Clifford adds:

The question, "Is the mind *a force?" is to be condemned by similar considerations. . . . Force is an abstraction relating to objective facts . . . and cannot possibly be the same thing as an eject, another man's consciousness.

But the question, "Do the changes in a man's consciousness run parallel with the changes of motion, and therefore with the forces of his brain?" is a real question and not *prima facie* nonsense.

Clifford affirms this question. He maintains that there is a correspondence between body and mind,* as there is between a written and a spoken sentence. There is a correspondence of element to element, each written letter although quite a different thing from a sound, corresponds to a certain sound. The written sentence as well as the spoken sentence "are built up together, in nearly the same way. . . . The two complex products are as wholly unlike as the elements are, but the manner of their complication is the same."

Now we know that certain motions are accompanied by consciousness, and that others, so far as we can see, are not. How can we account for the appearance and disappearance of consciousness?

* Soul and mind are used here as a synonym of the sum total of feeling or consciousness, i. e. concentrated feeling. They represent the series $\iota \kappa \lambda, \iota' \kappa' \lambda', \iota'' \kappa'' \lambda'',$ etc.

Some understand by such words as soul, mind, etc., mere states of consciousness $\iota \kappa \lambda$, some the objective nerve structures and their functions *I K L*, others still groups of facts consisting of both series $\iota \kappa \lambda, I K L$. It is apparent that a difference in the usage of terms without further indication as to their meaning, must be productive of great confusion.

We know that certain dim feelings become conscious by concentration. The mechanical process of nerve activity gives us the key to this explanation, for we have different degrees of feeling corresponding to different degrees of intensity produced through a concentration of nerve activity. Consciousness rises from simple feelings. But whence does feeling come?

Feelings must be considered as a complex of certain elements, which we call "the elements of feeling." The single letters i and x and λ and μ also ρ , σ , τ are elements of feeling. We have no right to assume that they exist by themselves, but must suppose that they accompany the elements of motion I , K , L , M , R , S , T , etc. Certain combinations of the elements of feeling produce actual feelings, just as certain combinations of feelings produce consciousness. If the concentration of consciousness is destroyed or for the time abolished, feelings may and under special conditions (as, for instance, in sleep or in hypnotic states) will continue. If a frog is decapitated the ganglions of the medulla will for a considerable time continue to feel. In like manner, if that combination which produces actual feeling is disturbed—destroyed, feeling will disappear, but the elements of feeling will continue.

Unless we consider every act of feeling a special creation of supernatural powers, a break in the continuity of nature, we are inevitably driven to the conclusion that all series $A B C$, $I K L$, $R S T$, etc., etc., are accompanied by $\alpha \beta \gamma$, $i x \lambda$, $\rho \sigma \tau$, etc., etc. All elements of objective reality are inseparably united with the corresponding elements of subjective reality, and the latter are those facts which under special conditions and in special combinations unite into feelings.

From the monistic standpoint we must look upon nature as being endowed with the potentialities of feelings. Every natural process we suppose to be animated with the elementary germs of psychic life, with that something of which our very simplest feelings are exceedingly complex combinations.

Nature cannot be considered as a dead machinery; it is alive throughout and every process of objective activity must be supposed to be animated by the elements of that subjective phase of life which in the human brain appears as consciousness.

Feeling, accordingly, is a special form of the elements of feeling, and the problem of the origin of feeling from this standpoint is to be stated as follows:

What is the molecular combination, and what is its mode of action that is accompanied by feeling?

This question has not as yet been answered, and physiology is very far still from solving the problem satisfactorily in all its details. The most important features only of the process are known, at least in coarse outlines.

[TO BE CONCLUDED.]

IS THE IDEA OF GOD TENABLE?

A LETTER FROM MADAME CLEMENCE ROYER TO THE "REVUE DE BELGIQUE."

I OBSERVE that in no part of his book does Dr. Carus declare himself a Christian, that he abandons all that is dogmatic in Christianity retaining only a modicum of its ethics: not that which is common to the Buddhism of Thibet, of China, or Japan, richer than all the polytheisms in personal gods for which are claimed all the goods of the earth, but with the doctrine attributed to Sakia-Mouni by the men of letters who think they know it almost as Saint Thomas or Bossuet knew the doctrine of Jesus, that is to say by hearsay, since neither Jesus nor Sakia-Mouni have written anything. I therefore ought not to have said that Dr. Carus *persists in calling himself a Christian*, but *persists in being one*.

That part of the ethics of Jesus retained by Dr. Carus, a far-distant echo perhaps of primitive Buddhist ethics, is the doctrine of the renunciation of self and his subordination to the whole, or else of his own evanescence, which was in India a reaction against the doctrine of indefinite transmigration. In spite of all, this ethics is at once ascetic and pessimistic. It declares terrestrial life evil and enjoins its renunciation in view of an eternal beatitude in which individuality is not lost.

Such a doctrine is contrary to the nature of things, to the law of real facts which, as Dr. Carus says, must remain the foundation of a rational ethics. The world far from being an undivided totality, is but a collection of individual units in conflict, among which peace exists but for a moment through an equilibrium always momentary, of the opposite forces. When these primitive individuals, atoms, or monads, organize themselves into hierarchical communities which constitute living beings, the same conflict of egotism subsists between these individualized aggregates, and the superior aggregates, termed species or races, as conflicting among themselves, as the very societies of human beings. The word egoist is therefore in every sense the starting point of all existence, the first condition in the evolution of each living individual, which only grows, develops, and preserves itself because it loves itself. With the sole difference that this egotism is carried to such an excess that it destroys itself and tends to destroy those of its race.

Such is the true law of nature. It is because it is not good, that it is not moral, and that it is not divine that precisely it must be endured although with an imprecation. It is while reacting against this wicked law that man has been induced, by the desire for happiness, to conceive the ideas of justice and goodness and to create the concept of God, contrary to all reality, deceptive hope, and faith, which have only increased human sufferings.

It is because Christianity, like Buddhism, disregards this fatal but real law of the world, that as Buddhism, it is contrary to nature and to such a point anti-social that all nations that have been captivated by it have been arrested in immobility. Buddhism has immobilized all the regions of Asia in which it has become established, just as Christianity has immobilized the West, from its triumph until the revival of Greek letters and of the pagan genius. Christian ethics, accordingly, like Buddhist ethics is condemned by the observation of the events of history. This is why I have reproached Dr. Carus for retaining something, which jars, as a contradiction, in his fine philosophical synthesis.

And further, he becomes obliged to continue to express by the word God a concept quite different to that which is evoked by the word in all languages. It is more conformable to respect for truth and more practical from the point of view of social life to designate the new concepts by new names, because from the confusion, under the same words, of concepts that are exclusive of each other, there can only result misunderstandings.

If, for example a philosopher, such as Dr. Carus, with whom I should have much pleasure in conversing, had been introduced to me as a Christianizing deist, after the civililities and moral com-

mon place remarks between people who are not long acquainted, I would curtail the interview, believing that we should not be able to come to an understanding upon any question, and I would go and find among the other guests those who seemed more in harmony with me, upon the bases of scientific certitude, by the fact alone that they declared themselves anti-Christians, without doubting that I might have found, on the contrary, a much more complete intellectual conformity with Dr. Carus than I had expected. His misleading title of deistical Christian might have deceived me about him. If he had placed his chapter upon Christian ethics, at the opening of his remarkable volume, it is greatly to be feared that I might not have believed it to be any use to proceed further; as he has placed it at the conclusion, I have only to remark that it contradicts the beginning.

Certain words are the banners of the great intellectual armies that divide humanity; one has not the right to furl his flag in the face of the enemies' colors.

A deist is one who believes in the existence of a God at once, personal and supernatural, having created the world by virtue of a "Special Ukase," as Dr. Carus says. Theism essentially does not differ enough from Deism to be distinguished from it by those who have not made a special study of these problems. The term Pantheist is better understood by the masses who naturally confound it with Atheism; because if God is all, he is nothing; and such is in reality the God of Dr. Carus. It is, according to him, the law which governs the world, but which, in reality, blends itself with the world.

When two individuals declare they believe in God, it does not follow that one is obliged to ask them: What do you mean by that? Many people would be taken aback, incapable of expressing the ideas they formed of it, and I see here our devout cross themselves in dismay, upon hearing Dr. Carus define his God-law, when they would have been upon the point of giving him their *bon Dieu* without confession.

In the same way a true Christian is a deist who believes, besides, that God has had a son, who became incarnate in the womb of a virgin, who died to redeem the world from original sin, and who ascended to heaven, in flesh and bone, promising to those who would believe in him, that they should meet him above. The number of these Christians diminishes every day, but there are to-day a great number of pretended Christians, heretics of all degrees, who find in Christianity all that which they seek, because they place in it all that they believe. It is among these Christians of the tenth homeopathic attenuation that I believed myself obliged to place Dr. Carus, because he preserves Christian ethics at least in part. He is not a Christian except in ethics I admit, and he is wise in not claiming a title that would be showing false colors. All those who have reflected upon their beliefs, who are conscious of the absurdity of the orthodox dogma and of its incompatibility with the data of science, owe it to themselves to reject a qualification against which their conscience is obliged to protest as much as their reason.

Likewise those who deny not only the divinity of Jesus as the Son of God, but, moreover, the personal existence of the Father; who with Dr. Carus consider the world as an eternal totality, animated by self-governing activities, regulated by laws, have not the right to pretend that they believe in God; because the word God, to all the world, in all the European languages, signifies not only another thing, but even the contrary.

In vain does Dr. Carus invoke the example of the word *fire*, the sense of which has, by no means, changed, which in all languages signifies the same phenomenon, and which to everybody denotes that which burns. Only a small number of philosophers, in days gone by, saw in it a special substance, because at that time, under each attribute, they would imagine an entity. But to the philosophers of to-day, as well as to scientists, there is no more fire;

there are only chemical combustions which disengage heat. In order to express certain new conceptions, they have adopted new words; it is *heat*, not *fire* or *flame*, which is conceived as a mode of movement, without agreeing upon this mode itself.

It has been the same with electricity. The Greeks named amber *ἤλεκτρον*, but they had not a word to designate its special property of attracting light bodies. When at a more recent epoch, this property had been proved to exist in other bodies, under certain conditions, it was called *electricity*, by the same act of abstraction which has given rise to the words heat, color, etc. When after static electricity, the voltaic current was discovered, it was called *dynamic electricity*, by virtue of the Aristotelian method of characterization according to species and difference. Although the phenomena of magnetization may certainly be of the same nature, and closely allied to the phenomenon of static electricity, they have given to it the special names first of magnetism and afterwards of inductive electricity. Thus to each new concept has been attached a new word.

Dr. Carus, accordingly, may follow the example of M. Renan who, no longer believing in the God Creator of the genesis, calls a God, very analogously to that of Dr. Carus, the *divine* or the *category of the ideal*; but let him avoid the tautologies into which our philosophy falls, when yielding to the authority of all customs, it mingles the new names of God with the old one, to such a point that having dedicated a book to his sister in the bosom of God, the departed person actually would dwell within the bosom of a category, according to Dr. Carus it would be *within the bosom of a law*.

Each age and each doctrine needs its own language and its own rhetoric. The modern mind ought to rid itself of the obsolete words which no longer answer to its thoughts, and divest the old worn-out forms of the human world.

UT SEMENTEM FECERIS, ITA METES.

To the Czar,

BY VOLTAIRINE DE CLEYRE.

How many drops must gather to the skies
Before the cloud burst comes, we may not know:
How hot the fire in under hells must glow
Ere the volcano's scalding lavas rise,
Can none say; but all wot the hour is sure!
Who dreams of vengeance has but to endure!
He may not say how many blows must fall,
How many lives be broken on the wheel,
How many corpses stiffen 'neath the pall,
How many martyrs fix the blood-red seal;
But certain is the harvest time of Hate!
And when weak moans, by an indignant World
Re-echoed, to a Throne are backward hurled,
Who listens, hears the mutterings of Fate!

CURRENT TOPICS.

Who is responsible for the Lake Pepin disaster? This question has been answered by a clergyman of Chicago, who testified in the pulpit that God contrived the sinking of the steamboat as a punishment for sabbath-breaking. This explanation excuses the Captain, who had been charged with reckless tempting of the storm, and with bad seamanship all through. If the reverend preacher is correct, and it was God's purpose to wreck the boat for carrying passengers on Sunday, then no human care or skill could have saved her, and the captain stands absolved from all responsibility. Also, the coroner's jury is relieved from all further expense and trouble. The verdict is found by an orthodox minister, and the catastrophe is attributed not to bad seamanship or natural causes, but to theological agencies, and divine wrath. This is merely the pulpity way of giving emphasis to a church precept, and the reverend gentleman would himself be offended should he be thought in earnest.

If the jury should agree to his verdict, he would probably be the first man to ridicule the antiquated folly of it.

The easy, flippant way in which certain ministers of the gospel accuse the Creator of injustice, is very much like blasphemy. When lightning strikes a church, and kills fifteen of the worshippers inside, as it recently did, we are not permitted to call this a divine punishment for church-going, but when it strikes a steamboat carrying excursionists on Sunday, we are taught that this is a punishment for patronizing a steamboat rather than a church. "Are we then to consider this disaster as a judgment of God," said the preacher; "I think, we must. Some will say that it was the natural result of the commotion of the elements. But who controls the elements?" This was conclusive. God controls the elements, was the answer suggested by the question, but that they are controlled by laws fixed and immutable, was not shown to the congregation. In cases of sudden and mysterious death, "Died by the visitation of God," has been the verdict in England for hundreds of years, and the form of it prevails to this day, although the men who render the verdict have ceased to believe it.

When the Chicago preacher interpreted what he incautiously called the "disaster" on Lake Pepin, as a judgment of God for sabbath breaking, he forgot that many of the victims were little children. It is not well to lower the Creator to the stature of Herod, the king. If the men and women on the steamer deserved death for being there, the children certainly did not. He also forgot that millions of sabbath breakers on the land were spared from the wrath of God. "The greatest of these is charity," saith the scripture, and the highest form of worship is that of doing good to others. Next unto it comes the innocent improvement of ourselves. When a laboring man, on Sunday, takes his wife and children for an excursion on Lake Pepin the beautiful, he does an innocent and a religious act, if well doing is one of the ingredients of religion. The evil of the preaching herein criticized is that when God neglects to avenge himself upon his enemies, or fails to punish the violators of his law, his human agents here on earth presume to do it for him. In performance of this imaginary duty, those self-appointed agents, acting in the name of religion, have left a crimson stain across every page of history.

A very successful method of advertising books is the "air of mystery" plan. It is effective and cheap. A few years ago, a dull, uninteresting novel, by an unknown writer, was puffed into an extensive sale by a stimulated public anxiety to learn the author's name. Feverish inquiries were made through the newspapers, and it seemed impossible to solve the important conundrum, "Who wrote it?" This was followed by guesses until nearly every writer of eminence was accused. When curiosity could be no longer excited, and the public began to suspect imposture, the book dropped into oblivion. Something similar is now going on, and public wonder is being stimulated concerning an article in the *North American Review*, signed X. M. C. This is a criticism of the Speaker of the House of Representatives and the revolutionary laws enforced by him for the government of that body. The advertising conundrum, "Who wrote it?" is again agitated in the newspapers, followed immediately by the startling first guess, "Mr. Blaine." When this shall have lost its novelty and exciting power, the second guess will be sent on duty; some other important personage will be suspected, and so on, until the weary people refuse any longer to chase the shifting "Will o' the wisp."

A great deal of just and proper censure has been thrown upon the new rules of the House of Representatives, and their administration. No student of government and its practices can examine them without forebodings of mischief to come, but they are only

efforts to escape from the dilemma in which the House found itself as soon as it was organized in December. The alternative presented was this: Shall there be no legislation during this Congress, except what the minority chooses to permit, or shall the Speaker have despotic power? Either horn of the dilemma was dangerous, and the House chose that which appeared the safer and the easier. It wrested from the minority some of its ancient rights, and made the Speaker absolute. The choice lay between despotism or anarchy, and the House chose despotism. Was this wiser or better than to allow the minority to obstruct business at will? To answer this question is not easy. At the beginning of the session, so close was the division of parties in the House, that the contingency of sickness alone was enough to prevent the majority from counting on a quorum. Whenever from any reason the republicans might happen to be without a majority present of all the members elected, the democrats by refusing to vote could block the wheels of business so long as that condition remained. The situation is a grave one, and to take a partisan view of the accusations and excuses of either side, is a weak and foolish thing to do. The difficulty is organic. It grows out of a defect in the structure of the legislative department of the government itself, a defect which Congress has not the power to cure.

Neither party is entirely responsible for the Speaker's power in Congress. The root of it is in that provision of the Constitution which requires that a quorum to do business shall be a majority of all the members. This provision had reason in it a hundred years ago, but it is not necessary now. Certainly the best evidence of a member's presence is his vote at roll-call, but it is not the only evidence, and when he declines to furnish it by refusing to vote, his presence may be proved by the next best evidence, which is that of the "Speaker's eye," as the rule is in the British House of Commons. In that house, with a membership of more than six hundred and fifty, forty constitutes a quorum, and whenever the question is raised, the fact of a quorum is determined by the Speaker's count. If, after counting, he decides that forty members are not present, the House is said to be "counted out," and stands adjourned by the sole fiat of the Speaker. In this Washington dilemma we have additional proof that constitutions grow, but are not made. We are frequently driven to revolutionary practices in order to escape from the fetters of our own Constitution. This is not a reproach, for no people ever did, or ever will, submit to the political restraints of a paper constitution, no longer adapted to their political condition, or equal to some great emergency, the existence of which must be, and will be, determined by the party in power, the condensed and consolidated majority.

M. M. TRUMBULL.

BOOK REVIEWS.

A STRIKE OF MILLIONAIRES AGAINST MINERS: OR, THE STORY OF SPRING VALLEY. By Henry D. Lloyd. Chicago: 1890. Belford, Clark & Co.

"The Story of Spring Valley" will make every American citizen of healthy morals uncomfortable and ashamed. The Tragedy of Spring Valley would be a better name, because the story is full of tragic elements. It is not easy to read with patience how the men of bullion boomed and doomed the city of Spring Valley. This dark tale of rapacity and wrong makes the pulses throb with honest rebellion against the conditions that permit such cruelties. In this book Mr. Lloyd exposes a successful conspiracy of millionaires to degrade labor and impoverish the laborer. In order to do this without personal responsibility, they seek to deprive themselves of soul and conscience by an act of business legerdemain. This conjuration converts them into artificial and shadowy persons known as Corporations Aggregate, irresponsible anonymities which,

Mr. Lloyd says, have "no souls to be damned"; a popular mistake which contradicts the divine law. These corporations have as many souls as they have men, and every soul is responsible in proportion to the stock it holds, and the profits it receives. The moral law is not to be evaded by absorbing the souls of stockholders into a commercial Nirvana called a Corporation Aggregate.

The poetical invention of Mr. Lloyd has given to his writings that spiritual power which belongs to genius; but here he has restrained his imagination, and made the effect of his book depend upon description and fact, presented by an eye-witness whose veracity is not to be impeached. An exception to this method is the use which Mr. Lloyd makes of the legend connected with Starved Rock; and here he allows his imagination full play. The historic landmark called "Starved Rock" rises like a tall castle out of the Illinois river, with a narrow and precipitous pathway to the top of it from the main land. Tradition says that here the last remnant of the Illinois tribe was driven by the Iroquois, and starved to death. Mr. Lloyd uses this legend for illustration; and while he strains it a trifle, his exaggeration is excusable under the circumstances. According to Mr. Lloyd's description,

"There the Illinois stood their last, the Iroquois gathered about. . . . A few denunciations of wrath and agony, and the Iroquois stood upon the wide top of the castle of rock, and there were no Illinois—except the dead. . . . With a touch of poetry, and perhaps a glimmer of remorse, the Indians, as they told the story, called the place Starved Rock, and Starved Rock the towered fastness will always be. . . . War paused here long enough to give this cruel name to the shapely tower garlanded with green, and then left the valley of the Illinois. . . . Business came, and Business hath its victories no less renowned than war. At starved Spring Valley, near by, the story of a victory of Business was printed in the same ghastly figures as that in which the Iroquois found their success recorded the morning when, no one opposing, they gained the top of Starved Rock."

The comparison between Starved Rock and Spring Valley is made visible by evidence that weaves itself into an indictment against the fourfold corporations that contrived the starvation of Spring Valley. How they "boomed" the town into fictitious prosperity until they sold the lots and enticed men to go there by promises of abundant work and comfortable homes, is a shocking revelation of what men will do when heart and conscience have been squeezed out of them by avarice, but it is an exhibition of moral philanthropy when compared to the manner in which they "doomed" the town to desolation and its inhabitants to exile when their conspiracy of greed was ripe. In the expressive language of Mr. Lloyd, "To 'make more money,' disease and starvation were invited to come to Spring Valley, and they came."

The town was boomed into a prospective metropolis by the customary means, the ancient method well known in the western states; but the manner in which it was doomed had a stroke of original genius in it highly creditable to the maleficent sagacity of the fourfold corporations who played the leading parts in this portentous drama of "dollars against men." It began in December, 1888, by a strike of the mine-owners against the miners. Shafts Nos. 3 and 4 were thrown into idleness, and seven hundred men locked out. This without a moment's warning. In the following April all the miners were laid off, and the strategy of starvation plotted in gilded parlors began its allotted work, the subjugation of labor and the permanent reduction of wages. For several months the garrison held out, but the end was as certain as the siege of Starved Rock. The miners must either surrender, banish themselves, or die. They surrendered, and "signed the document." This document, ironically called a "free contract," is the perpetual charter of their servitude, wherein it is recorded under their own hands, that the miners of Spring Valley have given up liberty for bread. This conquest by the fourfold corporations lowers the standard of men in the United States, not only of the miners who were driven by hunger to "sign the document," but of all other Americans, for

the national standard is the average moral height of all the people, and the degradation of any part lowers the stature of the rest.

The strike of the millionaires is a dreary story, full of heart-ache and sorrow. Men sullen with enforced idleness, women pinched with hunger, babies dying with starvation, people shivering with cold, living on a coal bed, and hauling wood from a distance to keep them warm, because denied the fuel beneath their feet: what is all that but the sowing of dragon's teeth? An account of the evictions on Lord Ponsonby's estates in Ireland excites our anger and our pity, especially about election time, but the service of a hundred eviction notices in one day on the destitute miners of Spring Valley, by the sheriff of Bureau County, excites no feeling except a feeling of indifference; and the man who calls our attention to it is regarded as a very unpleasant person.

Doubtful of these things, and hopeful that they are not all true, we cry out: "Is there not another side to this?" Yes; and Mr. Lloyd has given us the other side. He has presented the denials, explanations, and excuses of the fourfold corporations. These are not sufficient, and Mr. Lloyd shows that they are not true. The report of the Adjutant-General of the State, who had been sent by the Governor to Spring Valley to examine into the condition of the miners, is shown by Mr. Lloyd to be prejudiced and incorrect. The animus of the Adjutant General is exposed by a paragraph in his report, where speaking of the doomed city, he jokes on misery after this fashion, "there is a general paralysis of all business interests and trades except those dealing in luxuries!" Mr. Lloyd's answer to this report is very successful.

Mr. Lloyd concludes his book with an eloquent warning based on some legal, religious, and economical propositions, which are not yet recognized either in law, religion, or economics. Addressing the millionaires, he says: "Political economy gives you private property, only that the interest of all may be served by your self-interest." This reads like a contradiction, but waving that, where does Mr. Lloyd find in political economy any such principle? He also says, "The law gives you your franchises and estates only for the general welfare and the public safety." There may be something like this in the moral law, but Mr. Lloyd will hardly find anything like it in the law of Illinois. Further he says: "Religion holds you to be only stewards of your riches." Yes, abstract religion does, but religion in the actual does not, as witness the practical religion of the very men he is talking to, and the churches to which they belong. The warning, however, is well enough, and all classes may profitably heed it. They will probably pay about as much attention to it as the Cities of the Plain gave to similar warnings just before the fire came down.

While recognizing that there are sores in our social and economical life, it is not well to take a morbid view of these things, sad and humiliating as they are. We cannot fairly say that the dark romance of Spring Valley represents the condition of American industry, or that it is "typical" of the laborer's condition. If that were true the land would be on fire with rebellion, and the social war would be a physical force battle, instead of an economical debate as it is now. The strike of the millionaires against the miners is not a typical but an exceptional example of the relations existing between Capital and Labor. Let us hope that it not only will remain an exceptional example, but that it will become impossible in the future.

Neither can gloomy instances like the tragedy of Spring Valley give substance and solidity to a Midsummer Night's Dream, like that of Mr. Bellamy. The temptation to generalize all social accidents into arguments for our favorite "ism," was too strong to be resisted by Mr. Lloyd, and he turns the strike of the millionaires into a plea for that ethereal idealism known as Nationalism. These defects, however, are trifling when compared to the merits of the "Story of Spring Valley," a story which must be read, and the lesson of it heeded, or worse things come. M. M. T.

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THE FICTIONS OF FICTION.

BY HELEN H. GARDENER.

I READ—on a recent railway journey—a popular magazine. Its leading story was labeled as a "story for girls." In it the traditional gentleman of reduced fortunes continued to still further deplete the family-resources by speculation, and the three daughters who figure in most such stories went through the regular paces, so to speak.

One taught music; one painted well and sold her bits of canvas for ten dollars each; but the third girl had no talent except that of a cheerful temperament and the ability to drape curtains and arrange furniture attractively. These girls talked over the fact, that they were now reduced to their last ten dollars and the pantry was empty, father ill, and mother—not counted. They joked a little, wept a few tears, and prayed devoutly. Then the talentless one received an invitation in the very nick of time to visit the richest lady in town (a cripple with a grand house). She went, she saw, and, of course, she conquered—earned money by giving artistic touches to the houses of all the rich people in town, and eight months later married the nephew of the opulent cripple. No more mention is made of the empty pantry, the sick father, and the two talented girls whose labor did not previously keep the wolf from the door. But it is only fair to suppose that the new husband was to be henceforth the head of the entire establishment—surely a warning to most young men contemplating matrimony under such trying circumstances. All is supposed to move on well, however, and every hapless girl who reads such a story, is led to believe that *she* is the household fairy who will meet the prince and somehow (not stated) redeem her father's family from want and despair. For it is the object of such stories to convey the impression that everything is quite comfortable and settled after the wedding. The young girl who reads these stories looks out upon life through the absurd spectacle thus furnished her. She sees nothing as it is. Such little plans as she can make, are based upon wholly incorrect data. Her whole existence is unconsciously made to bend to the idea of matrimony as a means of salvation for herself and such as may be, to her in any way, objects of care.

Indeed, what are commonly known as "safe stories for girls," are made up of just such rubbish, which if

it were only rubbish, might be tolerated; but the harm all this sort of thing does can hardly be estimated. I do not now refer to the harm of a more vicious sort that is sometimes spoken of as the result of story reading. I am not considering the deliberately scheming nor the consciously self-sacrificing girl who struts her day on the stage and marries to save the farm or her father or any one else. I am thinking of the every day girl, who is simply led to see life exactly as it is likely *not* to be, and is therefore disarmed at the outset. She is filled with all sorts of dreamy ideas of rescue by prayer or by means of some suddenly developed—previously undreamed of—rich relation or lover or, I had almost said—fairy. And why not? Literature used to bristle with these intangible aids to the helpless or stranded author. The name is changed now, it is true, but the fairy business goes bravely on at the old stand, and the young are fed with views of life, and of what they will be called upon to meet, which are none the less harmful and visionary because of the changed nomenclature.

A gentleman of middle age said to me not long ago: "I grew up with the idea that people were like those I met in books. I went out into life with that belief. I measured myself by those standards, and I have spent much time in my later years re-adjusting myself to fit the facts. It placed me at a great disadvantage. I saw people and deeds as they were not—as they are never likely to be in this world—and I could not believe that my own case was not wholly exceptional. I began to look at myself as quite out of the ordinary. My experiences were such as belied my reading, and it was a very long time and after serious struggle, that I discovered that it was my false standards, derived from reading popular fiction, that had deceived me and that, after all, life had to be met upon very different lines from the ones laid down by the ordinary writers of fiction. I really believe I was unfitted for life as I found it, more by the fictions of fiction than by any other influence."

Another gentleman—a writer of renown—said to me: "We may not 'hold the mirror up to nature' as nature is. The critics will not have it. We must hold it up to what we are led to think nature *ought* to be."

Now that would be all very well, no doubt, if the

picture were labeled to fit the facts. If it were distinctly understood by the reader that in ninety-nine cases out of a hundred the outcome would be wholly different, that the right man would not turn up, in the nick of time, to point out to the defenseless widow that there was a flaw in the deed. If the reader was warned that honest effort often precedes failure; that virtue and vice not only may, but do, walk hand in hand down many a lifelong path and sometimes get their boundary lines quite obliterated between them. If he understood that in life the biggest scoundrel often wore the most benign countenance and did not go about with a leer and a scowl that labeled him, all might be well.

A prominent woman, an authority on social topics, who is also a writer, a short time ago announced to her audience of ladies who gave the smiling response of a thoughtless yes, that no one ever committed a despicable act with the head erect and the chest well out. A dishonest man—a criminal—she said, a mean woman, always carry themselves so and so!

If that were true—if it bore only the relationship of probability to truth—courts of law to determine upon questions of guilt or innocence, would be quite unnecessary. A photograph and an anatomical expert would do the business. The doing of a wrong act would become impossible to a gymnast and the graceful "bareback lady" in the circus would be farther removed from all meanness of soul than any other woman living.

Yet some such idea—stated a little less absurdly—runs through fiction, the drama, and poetry.

Ferdinand Ward or Henry S. Ives would figure in orthodox fiction with "furtive eyes," "a hunted" look, and with very hard and repellant features, indeed; yet those who knew them well never discovered any such expressions. Jesse James would look like a ruffian and treat his old mother like a brute. But in life he was a mild, quiet fair-appearing man who adored his mother, and was shot in the back (while tenderly wiping the dust from her picture) by a despicable wretch who was living upon his bounty at the time and accepted a bribe to murder him. Young girls do not need to be warned against mother Frouchards. No girl of fair sense would require such warning; but the plausible, good-looking, and often nobly-acting man or woman who lapses from rectitude in one path while carefully treading the straight and narrow way in all earnestness and with honest intent in others, are the ones for whom the fictions of fiction leave us unprepared. In short the people who do not exist—the villain who is consistently and invariably villainous, the woman who is an angel, the people who never make mistakes, or who are able and wise enough to rectify them nobly, and all the endless brood are familiar enough. We know all of them, and are pre-

pared for them when we meet them—which we never do. But for the real people we are not prepared. For the exigencies of life that come; for the decisions and judgements we are called upon to make, the fictions of fiction have contributed to disarm us. We are hampered. There is no precedent. We feel ourselves imposed upon; we are face to face—so we believe—with a condition that no one ever met before. We are dazed; we wait for the orthodox denouement. It does not come. We pray. There is no angel visitant who cools our fevered brow with gentle wings and lulls our fears with promise of help from other than human agencies—which promises are straightway fulfilled, of course. We sit down and wait but no rich relation dies and leaves us a legacy, nor does the prince appear and wed us. Nothing is orthodox, but we have lost much valuable time, and strength, and hope in waiting for it to be so. We have failed to adjust ourselves to life as it is. We do not measure ourselves nor others by standards that have a par value. We are discouraged and we are at sea.

A short time ago I read a story of the late war. The burden of it was that, if a soldier had been brave and loyal, he could also be depended upon to be honest. I happened to read the story while under the same roof with an old soldier who was at that time a judge on the bench. He had served faithfully while in the army; he was brave and he, no doubt, deserved the honorable discharge he received, and yet while he sat on the bench he applied for a pension on the ground of incurable disease. While those papers were being investigated and one doctor was examining him for his pension, he also applied and was examined for life insurance as a perfectly sound man and healthy risk, and he got both.

The fact is, human nature is very much mixed. Good and bad is not divided by classes but is pretty well distributed in the same individual. Weakness and strength, wisdom and ignorance, impulse and reason, play their part in the same life with all the other attributes, passions, and conditions, and the literature which makes any individual the personification of good or of evil leads astray its confiding readers. Woman has been represented in literature as emotion culminating in self-sacrifice and matrimony. That was all. And even unto this day many persons can conceive of her in no other light. The idea has always been productive of infinite misery to the women whose whole book of life was read by these pages only, and to the men who have had carefully to spell out the other pages when it was too late to learn new lessons, or to develop a taste for an unknown language.

Man has been known as pure reason touched with chivalry and devotion, or else as a dangerous animal who preys upon his kind. There may be—in some

other life or world—representatives of both of these classes, but they are not the men with whom we live, and, therefore, whose acquaintance it is desirable we should make as early as possible.

That a large family is a crown of glory to the parents and an inestimable boon to the state, is an idea running through literature. Is it a fact or is it one of the fictions of fiction which it were well to stimulate and galvanize into life less persistently? What is the answer from reform schools and penal institutions, filled by ignorance and passion held in bondage by poverty; from cemeteries where mothers and babies of the poor and ill nurtured are strewn like leaves; from the homes of the educated and well to do where small families are the rule—large ones the deplored exception? What is the logical reply in countries whose sociological students sigh over the struggle for existence and a scarcity of supplies; "over population" and desperate emigration? Misery and vice bearing strict proportion to density of population and poverty, surely offer a hint that at least one of the fictions of fiction has gone far to do a serious injury to mankind.

But the fiction of fictions which has done more real harm to the human race than any other, perhaps, is the one which dominates it—the idea that woman was created for the benefit and pleasure of man, while man exists for and because of himself. It has utilized even her hours of leisure and amusement to sap the self-respect of womanhood while it helped very greatly to brutalize and lower man by keeping—in this insidious form—the thought ever before him that woman is a function only and not a person, and that even in this limited sphere she is and should be proud to be his subject. "He for God, she for God in him."

It is true that since the advent of women writers fiction has shown a tendency to modify to a limited extent this previously universal dictum, but the thought still dominates literature greatly to the detriment of morals and the dignity of both men and women.

The woman who has no history is the woman to be envied, says literature—and yet people do not envy her any more than they do the man of like inconspicuous position. No one wishes that she might go down to history, if one may so express it, as historyless. No one points with pride to Jane Smith as his illustrious ancestor any more than if Jane had chanced to be John. To have been a Mary Somerville, or an Elizabeth Barrett Browning, or a George Eliot, most historyless women would be willing to change places even now, and as for "those who come after," can there be a question as to which would give more pride or pleasure to man or woman, to say—"I am the son, or the brother, or the nephew of Mrs. Browning," or to

say, "Jane Smith, of Amityville, is my most famous relative?"

I have my suspicions that even Mr. Grant Allen would waver in favor of Elizabeth in case both women were his cousins. In public, at least, he would mention Jane less frequently and with less of a touch of pride. Personally he might like her quite as well. That is aside from the question. I have no doubt that he might like John Smith as well as Shakespeare, personally, too, and John may have led a happier life than William, but is a man with no history to be envied for that reason? The application is obvious.

[TO BE CONCLUDED.]

PLANETARY STATESMANSHIP AND THE NEGRO.

BY T. B. WAREMAN.

THE abolition of slavery in this and other countries has brought to the front the questions of race-occupation in a manner that promises to test civilized Statesmanship to the uttermost. The recent articles of Prof. Cope and Mr. Wake in *The Open Court*; of Mr. Breckenridge and Senator Wade Hampton in the *Arena*; and by Mr. Shaler in the *July Atlantic*, are but specimens of a vast literature now being thrown up by a pressing necessity. This necessity is witnessed by constant and bloody collisions of the White and Negro races in the South, the social ostracism and the practical return of the latter to slavery or serfdom there, and the federal election bill in Congress to prevent that result, if possible by securing political power to the Negroes.

The metaphysical illusion of Senator Sumner, still indulged in by Mr. Shaler, was to the effect, as the latter says: that "the African and European races must remain distinct in blood, and at the same time they must, if possible (?), be kept from becoming separate castes." But they have become separate castes, and the Civil Rights Amendments to the United States Constitution, and all laws to enforce them, have been practically abrogated by the United States Supreme Court,* as "regulations of inter-state commerce, and therefore to that extent unconstitutional and void."

Thus the thirteenth, fourteenth, and fifteenth Amendments to the Constitution, which Senator Sumner supposed would protect the freedmen from caste, and which were to stand as his proudest monuments, have by their failure tended to justify and establish the very caste, they were passed to prevent.

There is no use in blinking the matter. The abandonment of the "carpet-bag" governments by General Grant in his second term, and these decisions of the Supreme Court, re-established social caste, industrial dependence, political subjection, and the prac-

* See Hall v. De Cuir, 95 United States Reports, 485 (1877), and the Civil Rights cases, 109 United States Reports, 3 and 109 (1883).

tical slavery of the colored race in the late rebel States. To pass acts of Congress, to give the Negroes the power of voting under these circumstances, is simply to force a conflict in which the minority race can only go a step lower. For, when a conflict of races, political or *other*, becomes *warm*, does any one expect a majority of the northern Whites to side with the Negroes? If so, they will soon find how much thicker is blood than metaphysical water and dreamy sentimentalities. The fundamental facts and truths which Prof. Cope has so plainly stated in his articles, will then demand respect. It will be found that two castes cannot exist together without one being dominant over the other, especially where the smaller is distinguished by color and menial labor. It will also be found that there can be no democratic Republic, like ours, where such a state of division exists. There can only be "rights" for the dominant class, as in Greece and Rome, and, as with them, only a "Republic" of "Aristocrats," capitalists, landlords, monopolists, and *their* politicians, office-holders, and Generals. The attempt to answer Prof. Cope by saying, that the races must "remain distinct in blood, and be kept from becoming separate castes," is to overlook the patent fact that no caste of India is stronger than that which exists between the races at the South to day, and that the Supreme Court has for ever stricken down every barrier to its continuance except one, and that is *miscegenation*.

This word, *miscegenation*, brings up the great question of planetary statesmanship. The time has come for the statesmen, and the civilized, and especially the English speaking peoples of our little planet earth; to exercise a little reason and foresight, as to how its various grand divisions or continents had better be farmed out and occupied by the grand divisions of our race. If we are reasonable beings there ought to be some reason applied to this highest of questions, instead of going it blind by war, conquest and "free-trade" like so many savages. From that supreme practical and moral point of view the question recurs, can and should *miscegenation* become general so as to abolish caste and give *equal* mongrel citizens, with equal rights and privileges upon which Republics securing liberty and welfare to all may safely rest?

Prof. Cope, has shown from grounds physiological and other, that this admixture of races is not desirable. But the first and conclusive answer is, that it cannot be accomplished in time to solve the difficulties, even in our own country. That it can take effect so as to obliterate the yellow races of Asia, the tawny races of India and North Africa, the dark races of Africa, and the copper races of America, is too absurd to argue. In a future practically limitless, these races will continue to occupy as so many farms the grand divisions where Mother Earth has produced them, and

which she has awarded to them. Moral, modern, scientific, social, planetary statesmanship consists in recognizing this fact, and in respecting and treating each race as *so* at home, there to develop itself so as to attain the greatest possible welfare of its people; and also to establish such international relations and intercourse as will best secure the common benefits of all by treaties, tariffs, and a common Congress and Navy for common protection.

From this point of view and the evils arising, it is evident that the presence of the Negro in America is an accident of slavery, a racial anomaly opposed to the true interests of both races, which should cease with their slavery. That the colored people are fondly attached to their home-surroundings, is doubtless true. So were the Hebrews, doubtless, in old Egypt; but a land of caste is a land of bondage, ever deepening from generation to generation. It is childish and useless to say that this ought not to be so, that it must not be so,—but so it is, and so it will remain with ever worse consequences.

If we are asked: Is it possible even without this race caste to save the republic? It may be fairly answered: Yes. By the public administration of public and industrial affairs, in this age of machinery, monopolies may be disarmed, citizens kept without caste and within associative distances, and poverty and ignorance give place to a well-to-do comfort of the masses of the people, which the Republic (Commonwealth) was meant to secure. But with this barrier of race and colored labor (made as hard as adamant by caste) across the future of our Democratic Republic, its fate is doubtful in the extreme. Senator Seward used to speak of the slave states as the "capitalistic" states; but all of the states are fast becoming that now. When the southern capitalist rendered secure by caste, unites with the northern capitalist resting upon a wage-slavery rendered secure by "anarchy" and also by race prejudice, who cannot foresee the disastrous result.

Or take the other horn of the dilemma. Suppose the Negro turns out to be the better and stronger race in the South, and that the whites withdraw, and leave him with a belt of Negro states lying across the mouth of the Mississippi. How long would such a state of affairs peacefully continue? Or again, suppose as Senator Wade Hampton suggests, the colored people could be induced to go, or could be sent north;—would the result be the abolition of caste and its evil consequences? All know, or can soon learn by trial, that the effect would be to extend and deepen that very caste and its evils.

To the colored people, the United States can never be other than the land of Egypt, and their true Moses will be seeking for a Canaan of their own *not* far beyond its borders. But where?

We answer: the West Indies, with ninety thousand square miles and only five millions of inhabitants largely colored, are the garden of the world, and naturally and plainly the Canaan of the Colored Freedmen and their descendants from both North and South America. The United States should take the lead in establishing a republic of the colored people there under such a protectorate as would secure their independence, welfare, and best development. The great Antilles are owned (except Hayti, already two colored republics) by the very people, England and Spain, who ought to repair the evils of slavery they and we have caused, by joining with us to present this splendid Canaan to the colored race in the Americas. If money is needed to buy these islands in addition to the moral consideration, let us look about and find it. They would repay the cost a hundredfold in one generation, as centres of commerce, North, South, East, and West through the Isthmian canals to Asia. But will the colored people go willingly? Let them know the attractions and the prospects and they certainly will. The oppressed went towards Canaan willingly when they saw its grapes and corn, and knew that there was a Power to make that land their own. That Power to our oppressed is the American People. They will not harden their hearts when the interests of all seem to demand that Pharaoh and Moses should unite to repair the great wrong of their history by a greater blessing.

It is not at all necessary to concur with Prof. Cope's low estimate of the Negroes' mental and moral qualities to be assured of the propriety of this separate republic. On the contrary, the greater those qualities are or become; the more necessary is it that they should have a proper sphere for their evolution without danger to others and consequent repression to themselves. They must go gradually and willingly in order to better their condition. They cannot be forced to go as General Jackson forced the Creeks. They are too many. They must go as our ancestors came here—not as theirs came. Nor must they go to far-off, savage, cruel Africa, beyond the protection of the American people, nor to central America where they would have uncertain boundaries and hostile neighbors and insalubrious climate. They must go under the American flag as Americans, and with the assurance of the great republic in the motto, "*Qui transtulit, sustinet.*" The Power that transferred a great people to their new home will sustain them there forever, as a People and a Nation.

FEELING AND MOTION.

(CONCLUDED.)

The process taking place in the nervous system may briefly be described thus: An impression of the

surrounding world affects the skin or one of the sense-organs of an animal organism, and produces a shock upon the sensory nerve-fibres. This shock is transmitted to the ganglion where it causes an action in the gray nerve-cells; this action of the ganglion is further transmitted to the motor nerve and when it reaches the end of the motor nerve a discharge takes place which causes the muscle to contract, thus producing muscular motion. Along the whole line from the impression received to the muscular contractions there is an uninterrupted chain of motions.

Physiological psychology, inaugurated by Fechner and elaborated by many great scientists of all nationalities, is busy at work to measure the subtlest movements of nerve-activity. Says George J. Romanes in his Lecture, "Mind and Body":

"If, by means of a suitable apparatus, a muscle is made to record its own contraction, we find that during all the time it is in contraction, it is undergoing a vibratory movement at the rate of about nine pulsations per second. What is the meaning of this movement? The meaning is that the act of will in the brain, which serves as a stimulus to the contraction of the muscle, is accompanied by a vibratory movement in the muscle, is accompanied by a vibratory movement in the gray matter of the brain; that this movement is going on at the rate of nine pulsations per second; and that the muscle is giving a separate and distinct contraction in response to every one of these nervous pulsations. . . .

A sensory nerve which at the surface of its expansion is able to respond differently to differences of musical pitch, of temperature and even of color, is probably able to vibrate very much more rapidly even than this [*viz.*, one thousand beats per second]. We are not, indeed, entitled to conclude that the nerves of special sense vibrate in actual unison, or synchronize, with these external sources of stimulation; but we are, I think, bound to conclude that they must vibrate in some numerical proportion to them (else we should not perceive objective differences in sound, temperature, or color) . . . there is a constant ratio between the amount of agitation produced in a sensory nerve and the intensity of the corresponding sensation. . . ."

So far as we can observe a process of nerve-activity, there is no change of motion into feeling and of feeling back into motion. There is no such break in the chain of mechanical causes and effects. Yet in a certain part of the chain of mechanical causation, the motions are accompanied by feelings; and we have sufficient reasons to believe that the place where motions are accompanied by feelings is the ganglion.

We return once more to Prof. Clifford. We followed his arguments and adopted his conclusions except the very last inference he made. Prof. Clifford concludes his essay with the following consideration. He says:

"That element of which, as we have seen, even the simplest feeling is a complex, I shall call *mind-stuff*."

Clifford solves the question in the following manner:

"As the physical configuration of my cerebral image of the object

"Is to the physical configuration of the object,

"So is my perception of the object (the object regarded as complex of my feelings)

"To the thing in itself."

Clifford sums up his doctrine :

"The universe, then, consists entirely of mind-stuff. . . .

"Matter is a mental picture in which mind-stuff is the thing represented.

"Reason, intelligence, and volition, are properties of a complex which is made up of elements themselves not rational, not intelligent, not conscious."

Clifford in speaking of similar views propounded by Kant, Wundt, and Tyndall, says in an adjoined note :

"The question is one in which it is peculiarly difficult to make out precisely what another man means, and even what one means oneself."

The conclusion of Clifford's arguments that the universe consists entirely of mind-stuff, I must confess, appears to me very abrupt and I cannot admit it. Although in accord with all the rest, I cannot follow Clifford to the end. It may be that I fail "to make out precisely" what he means, but if allowed to make a conclusion of my own in close connection with his reasoning as above described, I would say :

The thing in itself is the inner, i. e., subjective reality, which appears (so as to become perceptible) as motions or outer, i. e. objective, reality.

The following may be added by way of explanation : The world is as it is, one indivisible whole. All its objective reality is throughout combined with subjective reality. The objective reality we call matter, and its activity motions. The subjective reality we call elements of feeling ; and the compounds resulting therefrom are actual feelings and consciousness. It is this subjective reality alone which Clifford defined as "mind-stuff," and when speaking of the universe as it really exists, he improperly limits its reality to mind-stuff, as if the objective reality, which is represented in our brains by what we call motions, were a mere illusion. It is true, as Clifford says, that "matter is a mental picture" ; but it is not true that it represents "mind-stuff." Matter is no mere mental picture ; it represents a certain feature of reality, viz., all that can affect sensibility. The term 'matter' is the most general abstract of its kind and cannot be expressed in terms of "mind-stuff," for it represents a certain set of experiences which Clifford has purposely excluded from his conception "mind-stuff."

* * *

Man's method of understanding the processes of nature is that of abstraction. We confine our attention to that feature alone which is to be investigated and we eliminate in our thought the others. Thus, when enquiring into the laws of mathematics, we confine our attention to the mere form of space, and deal with

non-material points, lines, planes, and solids. These non material points, lines, planes, and solids are not untrue (as Mill imagined), but they represent one abstract feature only which can never be found by itself. The same is true of all our concepts. Every concept is formed for some purpose, and every concept by serving one purpose necessarily becomes one-sided. It leaves out of sight those features of the object represented which do not range within the scope of its purpose. We may invent names intended to cover the whole reality, subjective as well as objective, but these names will become inappropriate as soon as employed for some other purpose.

If I consider an object, I may inquire into the material of which it consists, or into the body's form, or its motions. For instance, a chemist making a spectrum analysis of the sun, leaves out of sight the size of the sun, its shape and motion. He confines his attention to the rays, the undulations of which appear in the spectrum as colors and lines. The Fraunhofer lines indicate the material of the incandescent body which emits the rays. An astronomer, however, investigating its shape,—say, he wants to know whether it is a perfect sphere or flattened at the poles—does not care about the substances of which the sun consists. And supposing he investigates the sun's motion in its relation to the milky way, he disregards entirely substance and form, he treats the sun as if it were a mathematical point. All these treatments have in common the method of abstraction. The astronomer in his calculation of the motion of the sun must not, and certainly he does not, think that the sun is a mathematical point, although this conception fits into his calculation and remains correct so far as the purpose of his abstraction is concerned. Accordingly, for every abstraction we have made, we must bear in mind two things : 1) the purpose it has to serve ; and 2) that the totality of things from which abstractions can be made, is one indivisible whole. In short we must not forget that abstractions are only one-sided views of things.

Not only abstractions but every single word is made for a certain purpose. In reality objects have no separate existence ; they exist in a constant flux, and the full and exhaustive comprehension of one object would include a comprehension of the whole universe. If this be true at all, it is most true of ourselves. The human soul is nothing more nor less than a certain action of the universe upon one part of the universe and the reaction following thereupon.*

* See "Fundamental Problems," p. 147 : "Knowledge becomes possible only when we fix certain percepts and give their relative stability." . . . "It is as if we sat in an express train and were looking at the landscape flitting by us. The picture taken as a whole swims indistinctly before our eyes. If we wish to get a clear idea of the situation, we must allow the eye to rest on some one object, neglecting the others," etc.; and p. 149 : "In reality the whole world is a part of our being," etc.

There are philosophers who are greatly disappointed about what they consider a deficiency of our intellect; viz., that we cannot view the whole at once in all its details. The relativity of knowledge has unnecessarily been lamented. There is as little occasion for disappointment in this feature of cognition as in the fact that our vision must always depend upon the standpoint from which we view things, and that if we look at a thing from one side, we cannot at the same time look at it from the other. Why, let us be patient and look at things first from this and then from the other side. But we must not imagine that the one side only is true reality, the noumenal part of nature, the *Ding an sich*, and the other is a mere illusion. Nor must we declare that both are illusions, and that true reality is something unknowable between both. Reality is everything that is or can become object of experience; both abstracts accordingly represent something that is real. Reality is not in the one, if considered alone and by itself, nor in the other if considered alone and by itself, but in the entire whole. The one as well as the other is a part of reality.

We can under no circumstances suppress or eliminate either mind (elements of feeling) or matter. Nor can we express the one in the terms of the other, for the simple reason, that each concept is an entirely different abstract containing nothing of the other. Nevertheless both are parts of, and are abstracted from, reality. What we call motion represents certain features of our experience. Whatever motions may be in the conception of beings organized otherwise than we are, motions remain marks representative of real processes of some kind, and the same is true of feeling.

We may represent motion or we may represent mind as the basis of the world or we may conceive them as being on equal terms.

(1) On the one hand, motion may be conceived as the objective realization (a kind of revelation) in which the activity of the elements of feeling appears.

(2) On the other hand, motion may be conceived as the substratum which carries the more ethereal elements of feeling.

(3) If neither matter nor motion is to be considered the one as the basis of the other, reality, as it exists in itself, may be conceived as a great interacting something, in which the effects of all the surrounding parts upon one special part, an atom or a monad, in so far as this part is concerned, appear as what we have defined as an element of feeling; while the effects of this special part, of every atom or monad upon the rest, in so far as the totality is concerned, appear as motion.

It is indifferent which view we take. All three conceptions are fundamentally the same, although if

worked out they would show a difference in terminology that must let them appear as contradictory systems. Upon the whole I should give preference to the third conception as being least one-sided and most unequivocal in representing the Oneness of all reality.

Matter and mind (the elements of feeling) are to be considered as one—not the same, but one. They are as inseparable as are the two sides of a sheet of paper. If we look at it from the mind side, its activity represents itself as elements of feeling and all kinds and degrees of actual feelings. If we look at it from the matter side, its activity represents itself as motions, or as all kinds of potential and kinetic energy.

* * *

There is one point which needs further elucidation at least in a few words. Clifford says:

"Reason, intelligence, and volition are properties of a complex which is made up of elements themselves not rational, not intelligent, not conscious."

This is true; for we arrive at the conclusion that the not-feeling elements of feeling develop into feeling and the not-rational monad develops into rational man. Yet we must at the same time emphasize that the formal laws according to which these not-feeling, not-rational elements combine into higher structures endowed with feeling and reason, are also a part of reality. The formal laws which are the *raison d'être* of all cosmic order, are omnipresent in every particle that exists; and we can learn to understand that nothing will stir, or change, or be, unless it be in conformity to the law of causation which is the law of change, and to the laws of form in general.*

The world it is true is not rational in its elements; but the laws of the world are the prototype of rationality itself. Human reason and all wisdom of any possible rational being develops from these conditions and remains in accordance with the formal laws of the cosmos. Human reason is conformity to, it is an expression of the order of, the All. The order of the All contains the possibility of developing reason. We have perhaps a right to call the elements of reality *not-rational*, but we commit a grave mistake when calling the All *irrational*. For the elements of being contain the origin and condition of all reason. Reason ceases to be reason as soon as it does not agree with reality.

P. C.

THE IMPORTANCE OF INDIVIDUALS.

BY PROF. WILLIAM JAMES.

[I had to express my regret to the Editor of *The Open Court*, a few days since, at not being able at present to furnish the article of which I had been question between us. The very next day, in opening a drawer full of antiquities, I came across the accompanying manuscript, and found myself wondering whether it might not even yet be fresh enough for publication, in spite of the fact, that its form is polemical and refers to an old controversy forgotten by mortal men. In the *Atlantic Monthly*, for October, 1889, I had written an article called "Great Men, Great Thoughts, and the Environment," in which

* See the chapter "Form and Formal Thought" in *Fundamental Problems*, p. 26.

I had tried to defend the Great Man Theory of History from the attacks of Messrs. Spencer and Grant Allen. Mr. Allen and Mr. Fiske did me the honor of replying to my remarks a couple of months later; and the manuscript I send you was a rejoinder to Mr. Allen which the *Atlantic*'s publisher declined to print. As the quarrel between Hero-worship and Sociology is always going on in some form or other it may be that remarks on the subject are always in order especially in a Journal as devoted to eternal things as yours. Apart from the temporary personal references in the little paper, it seems to me that it makes a distinction of value, which is too often overlooked in discussions on the subject in point. I therefore send it for you to do with it as you like.]

I have read with both pleasure and profit the articles of Messrs. John Fiske and Grant Allen in reply to my essay in the *Atlantic* for last October. Mr. Fiske's pages seem to me luminous with sober day-light. He confirms and reinforces by new instances all the distinctions made in my essay, so that I cannot but hail him as a welcome, though not unexpected ally. Our only dispute is about Mr. Spencer. Mr. Fiske thinks that everything I have said, lies hidden or revealed in the pages of that philosopher. I have always found it necessary in reading Mr. Spencer, to restate his thoughts for myself in order to work any precision into them; and have generally discovered that no precise re-statement was possible, which did not seem to my eyes materially to alter the doctrines themselves. If in this case what have seemed to me anti-Spencerian formulas, are really but re-statements in the reader's words of the master's sense, I can but apologize for my obtuseness, and bow my head before the difficulties of so deep a text.

Since Mr. Fiske and Mr. Allen both explicitly admit that the proximate agents of social change are individual men, great and small, and since this is all I have contended for, it seems as if our dispute must be a pure misunderstanding, or, like so many philosophical disputes, a disagreement about which of many universally admitted factors is the one upon which *emphasis* should be placed. That it is such a dispute about emphasis, can, I think, be easily shown.

Mr. Allen's contempt for hero-worship is based on very simple considerations. "A nation's great men," he says, "are but slight deviations from the general level. The hero is merely a special complex of the ordinary qualities of his race. The petty differences impressed upon ordinary Greek minds by Plato, or Aristotle, or Zeno, are nothing at all compared with the vast differences between every Greek mind and every Egyptian or Chinese mind. We may neglect them in a philosophy of history, just as in calculating the impetus of a locomotive we neglect the extra impetus given by a single piece of better coal. What each man adds is but an infinitesimal fraction compared with what he derives from his parents, or indirectly from his earlier ancestry. Now if what the past gives to the hero is so much bulkier than what the future receives from him, it is the matter which really calls for philosophical treatment. What we have really to explain is the force which produces the average man; the extraordinary men and what they produce must then come in their turn, and may apparently by the philosophers be taken for granted as *selbstverständlich*."

Now as I wish to vie with Mr. Allen's unrivalled polemic amiability and be as conciliatory as possible, I will not cavil at his facts or try to magnify the chasm between an Aristotle, a Goethe, or a Napoleon, and the average level of their respective tribes. Let it be as small as Mr. Allen thinks. All that I object to is that he should think the mere *size* of a difference is capable of deciding whether that difference be or be not a fit subject for philosophic study. Truly enough, the details vanish in the bird's eye view. But so does the bird's eye view vanish in the details. Which is the right point of view for philosophic vision? Nature gives no reply, for both points of view, being equally real, are equally natural, and no one natural reality *per se* is any more emphatic than any other. Accentuation, foreground and background, are created solely by the interested attention of the looker on; and if the "small" difference between the genius and his tribe interests

me most, while the large one between that tribe and another tribe interests Mr. Allen, our controversy can't be ended until a complete philosophy, accounting for all differences impartially, shall justify us both.

An unlearned carpenter of my acquaintance once said in my hearing: "There is very little difference between one man and another, but what little there is, is *very important*." This distinction seems to me to go to the root of the matter: *remoué laugit*. It is not only the size of the difference which concerns the philosopher, but also its place and its kind. An inch is a small thing, but we know the proverb about an inch on a man's nose. Messrs. Allen and Spencer, in inveighing against hero-worship, are thinking exclusively of the size of the inch. I, as a hero-worshiper, attend to its seat and function.

Now there is a striking law over which few people seem to have pondered. It is this: That among all the differences which exist, the only ones that interest us strongly are those *we do not take for granted*. We are not a bit elated that our friends should have two hands and the power of speech and should practice the matter of course human virtues. And quite as little are we vexed that our dog and horse go on all fours and fail to understand our conversation. Expecting no more from the latter companions, and no less from the former, we get what we expect and are satisfied. We never think of communing with the dog by discourse of philosophy, or with the friend by head-scratching or the throwing of crusts to be snapped at. But if either dog or friend fall above or below the expected standard, they arouse the most lively emotion. On our brother's vices and virtues we never weary of ruminating; to his bipedism or his hairless skin we do not consecrate a thought. *What*, he says, may transport us; that he is able to speak at all leaves us stone cold. The reason of all this is that his virtues and vices and utterances might, compatibly with the current range of variation in our tribe, be just the opposites of what they are, whilst his zoologically human attributes cannot possibly go astray. There is thus a zone of insecurity in human affairs in which all the dramatic interest lies. The rest belongs to the dead machinery of the stage. This is the formative zone, the part not yet ingrained into the race's average, not yet a typical, hereditary and constant factor of the social community in which it occurs. It is like the soft layer beneath the bark of the tree in which all the year's growth is going on. Life has abandoned the mighty trunk inside, which stands inert and belongs almost to the inorganic world. Layer after layer of human perfection separates me from the central Africans who pursued Stanley with cries of "meat, meat!" This vast difference ought, on Mr. Allen's principles to rivet my attention far more than the petty one which obtains between two such birds of a feather as Mr. Allen and myself. Yet whilst I never feel proud that the sight of a passer-by awakens in me no Cannibalistic waterings of the mouth, I am free to confess that I shall feel very proud if I do not publicly appear inferior to Mr. Allen in the conduct of this momentous debate.

"Kneller and Pope were better friends than Pope and Addison." Two theologians are as like as two peas comparatively, yet they quickly develop a kind of "odium" for each other which the far more widely differing personality of their washerwoman excites in the bosom of neither. Look at the antipathies of Philosophers, the contempt of artists for each other, at family quarrels, and civil wars. "To be wroth with one we either love or resemble doth work like madness in the brain." To me as a teacher the intellectual gap between my ablest and my dullest student counts for infinitely more than that between the latter, and the amphioux. Will Mr. Allen seriously say that this is all human folly and tweedledum and tweedledee?

To a Veddah's eyes the differences between two white literary men seem slight indeed; same clothes, same spectacles, same harmless disposition, same habit of scribbling on paper, and pour-

ing over books, etc. Just two white fellows, the Veddah will say, with no perceptible difference. But what a difference to the literary men themselves! Think, Mr. Allen, of confounding your article with mine merely because both are printed in the same magazine and are indistinguishable to the eye of a Veddah! Our flesh creeps at the thought.

But in judging of history Mr. Allen deliberately prefers to place himself at the Veddah's point of view, and to see things *en gros* and out of focus, rather than minutely. It is quite true that there are things and differences enough to be seen either way. But which are the humanly important ones, the ones most worthy to arouse our interest, the large distinctions or the small? In the answer to this question lies the whole divergence of the hero-worshippers from the sociologists. As I said at the outset, it is merely a quarrel of emphasis; and the only thing I can do is to state my personal reasons for the emphasis I prefer somewhat as follows.

The zone of the individual differences and the social "twists" which by common confession they initiate, is the zone of formative processes, the dynamic belt of quivering uncertainty, the line where past and future meet. It is the theatre of all we do not take for granted, the stage of the living drama of life; and however narrow its scope, it is roomy enough to lodge the whole range of human passions. The sphere of the race's average on the contrary, no matter how large it may be, is a dead and stagnant thing, an achieved possession, from which all insecurity has vanished. Like the trunk of a tree it has been built up by successive concretions of successive active zones. The moving present in which we live with its problems and passions, its individual rivalries, victories and defeats, will soon pass over to the majority and leave its small deposit on this static mass, to make room for fresh actors and a newer play. And though it may be true, as Mr. Spencer predicts, that each later zone shall fatally be narrower than its forerunners, and that when the ultimate lady-like tea-table elysium of the *déjà d'ethics* shall prevail, such questions as the breaking of eggs at the large or the small end will span the whole scope of possible human warfare, still even in this shrunken and enfeebled generation, "*spatio ætatis defossa estant*," what eagerness there will be! Battles and defeats will occur, victors be glorified and vanquished, dishonored, just as in the brave days of yore. The human heart will still withdraw itself from the much it has in safe possession and concentrate all its passion upon those evanescent possibilities of fact which still quiver in fate's scale.

And is not its instinct right? Do not we here grasp the race-differences in the making, and catch the only glimpses it is allotted to us to attain, of the working units themselves, of whose differentiating action the race-gaps form but the stagnant sum. What strange inversion of scientific procedure does Mr. Allen practice when he teaches us to neglect elements and attend only to aggregate results? On the contrary, simply because the active ring, whatever its bulk, is *elementary*, I hold that the study of its conditions (be these never so "proximate"), is the highest of topics for the social philosopher. If individual variations determine its ups and downs, and hair-breadth escapes, and twists and turns, as Mr. Allen and Mr. Fiske both admit, heaven forbid us from taboos the study of these in favor of the "average." On the contrary, let us emphasize these, and the importance of these, and in picking out from history our heroes and communing with their kindred spirits; in imagining as strongly as possible what "differences" their individualities brought about in this world, whilst its surface was still plastic in their hands, and what whilom feasibilities they made impossible; each one of us may best fortify and inspire what creative energy may lie in his own soul.

This is the lasting justification of hero worship, and the pooh-poohing of it by "sociologists," is the everlasting excuse for popular indifference to their general laws and averages. The difference

between an America rescued by a Washington or a "Jenkins" may, as Mr. Allen says, be "little," but it is, in the words of my carpenter friend, "important." Some organizing genius must probably have emerged from the French revolution; but what Frenchman will affirm it to have been an accident of no consequence, that he should have had the supernumerary idiosyncrasies of a Bona parte? What animal, domestic or wild, will call it a matter of no moment that not a maxim of sympathy with brutes should have survived from the teachings of Jesus of Nazareth?

The preferences of sentient creatures are what *create* the importance of topics. They are the absolute and ultimate law giver here. And I for my part cannot but consider the talk of the contemporary sociological school about averages and general laws, and predetermined tendencies to equilibrium, with its obligatory undervaluing of the importance of individual feelings, as the most pernicious and immoral of fatalisms. Suppose there is a fixed equilibrium, whose is it to be? That of your preference, or mine? There lies the question of questions, and it is one which no study of averages can decide.

It will be seen again that in all this I challenge not one of Mr. Allen's facts, but that my whole divergence from him is as to their relative importance. His brilliant essay presents, however, theories concerning fact which sorely tempt reply.

His statement of the differentiating powers of the environment is by far the clearest which has appeared. But it entirely fails to convince me. It declares every individual to be an aggregate of inherited habits, each developed originally by some special circumstance in the habitat of some special ancestor and simply transmitted from him. The aggregate of special circumstances is thus the ultimate engenderer of all the present individual's peculiarities. A Leonardo's versatility comes from his inheritance of many diverse habits; a La Fontaine's one-sided aptitude, from the cumulative addition of many lesser fabulistic gifts in his separate progenitors, with the latency of the rest of their attributes; a Spencer's powers of synthesis from the "combining," as distinguished from the mere aggregation, of many groups of ancestral faculties. But in this ingenuous theory, in which nothing comes out of the mill which was not put into the hopper, why the ancestral faculties should sometimes "combine," sometimes cumulate, sometimes simply aggregate, and sometimes remain latent, utterly fails to appear. Mr. Allen expressly admits that the same heredity will give different results even in twin brothers. If these irregularities of transmission do not prove the existence of an invisible disturbing cycle between the act of getting the faculties from the habitat and that of passing them on to the young; if all these slips between ancestral cups and filial lips prove not a molecular realm where things may go astray and scientific prevision be upset; then I know not what proof is. Yet such an invisible and molecular cycle Mr. Allen "empirically denies."

Furthermore on Mr. Allen's own principles that the environment alone can produce idiosyncrasies, do not great men deserve study at least as much as physical geography? Is not every great man a good part of the environment to which his neighbors are exposed? Did not Napoleon, while he lasted, form an environment to all Europe? Are not Goethe's "Sämmtliche Werke" a permanent part of the environment of the German race to day?

I think Mr. Allen mistaken in what he says of the greater impossibility of random variations in the nervous system than elsewhere, tho' at first sight his view is plausible. No new elementary factors of mind are required by genius, the most exceptional flights falling entirely within the limits of functional variation in the brain.

But all this is re-opening the controversy, so I must abstain. Experts will sift the true from the valueless on both sides of the discussion; and to their judgment what has already been written

may safely be left to appeal. I part with regret from so admirable and original an enemy as Mr. Allen has proved himself to be; but in lapsing into my relative loneliness and re-reading his list of brother Spenserians, I confess I do not tremble at his vaticination that I shall soon find myself "in a minority of one."

ETHICS A LAW OF NATURE

IN REPLY TO MADAME CLEMENTE ROYER.

MADAME ROYER has a very low opinion of nature and of the world. She says: "The world far from being an undivided totality, is but a collection of individual units in conflict . . . Such is the true law of nature. It is because nature is not good, that it is not moral, and because it is not divine that precisely it must be endured although with an imprecation. It is while reacting against this wicked law that man has been induced, by the desire for happiness, to conceive the ideas of justice and goodness and to create the concept of God, contrary to all reality, deceptive hope, and faith, which have only increased human sufferings."

It is true that strife is the law of life. Living is striving, and striving is fighting. Nevertheless, I can see a grand harmony in this apparent turmoil; I recognize order in the cosmic motions of the celestial bodies and in the development of organized life upon earth; and this order, which results from the necessity of law, indicates that the world is not a collection but a totality. The universe is not the sum total of innumerable items, of things and individuals put together; but on the contrary all things and individuals that exist are parts of the whole and indivisible universe.

Nature's ordinances, it is true, are not always pleasant, and the struggle for existence is often very hard. Whenever she gives she will take again, and wherever she endows creatures with consciousness, she fills their lives with joys as well as with pains. There is no unmixed happiness, and the best part of life is our ideals and the struggle for our ideals. Nevertheless, nature is grand, wonderful, and divine; and even if we should find fault with her, there is no use in railing at her laws. The laws of nature, if we comprehend them, if we apply them to our advantage, will make us great; if we leave them unheeded they will crush us whenever we come in collision with them.

By nature I do not understand the lowest forms of Nature only, but everything that exists, and also the laws that make higher forms of existence grow from the lower forms. The highest form of nature we know of is man with his ideals and aspirations. Nature is neither moral nor immoral, but nature is the condition of all morality. What is morality but obedience to the highest laws of nature, especially to those laws which wherever obeyed will produce higher forms of existence and a nobler state of society?

Madame Royer's conception of nature is too narrow. This narrow conception of nature which considers the features of the lowest types of existence alone as natural, has led to the idea of the supernatural. If justice, goodness, morality are not natural, pray tell me where do they come from? Do they really originate by a reaction against the "méchante" law of nature? If so the belief in the supernatural would be fully justified. If by "supernatural" we are to understand those forms of existence that develop from the lower forms of nature, we all, I hope, are believers in the supernatural, we all are co-workers in having as a common aim the further evolution of the supernatural here upon earth. There is one point, however, which we must all bear in mind: The supernatural does not come down from above as is maintained by theologians of the old school, but it rises from below. The supernatural is nothing but the higher forms of the natural.

Whether the word God should be retained in the purified sense that I have suggested, is to me a matter of indifference. The terms which we employ have no value apart from their meaning. Yet words are excellently fitted for serving as "banners"

(to use Mme. Royer's expression) or as party-cries. Thus they become catch words, which people, according to party, either hoot at or hail. For words people are persecuted. Most discussions are carried on about words, and most creeds are beliefs in mere words. As says Goethe:

"Mit Worten lässt sich trefflich streiten;
Mit Worten ein System bereiten;
An Worte lässt sich trefflich glauben.
Von einem Wort lässt sich kein Iota rauben."—FAUST, Vol. I. v.

[With words 'tis excellent disputing;
Systems to words 'tis easy suiting;
On words 'tis excellent believing;
No word can ever lose a jot from thieving.]

I have been sufficiently persecuted for being an atheist, why should I not for the sake of a change be reproached for theism? I am inclined to follow the old rule: "In verbis simus faciles, dummodo conveniamus in re;" and it is for this reason that I gladly suffer reproach from both sides.

Those who believe in God establish their faith upon the truth that there is a power in the world which enforces obedience to certain rules. These rules we call the moral laws. Wherever they are obeyed humanity prospers and progresses, wherever they remain unheeded the social conditions deteriorate so as to ruin society as well as all the single individuals of society. Whoever believes in God for this reason, which has been called the moral ground of God's existence, is not mistaken. He is mistaken, however, if he believes that this power is a personal being, or if he imagines that it is supernatural in the sense of "extramundane." Those to whom God is the principle of morality must learn to understand that to speak of God as of a person is a gross anthropomorphism, and to consider him as something different from or outside of nature is incompatible with the most elementary conceptions of science.

Madame Royer tells us that M. Renan had dedicated a book to his deceased sister with the words, "to his sister in the bosom of God," and she adds with a good dose of irony, "with Dr. Carus that would be in the bosom of a law."

I certainly feel an unspeakable quietude, a sentiment of unshaken confidence, when considering that my beloved ones the living as well as the departed, and also I myself, are living, and moving, and being in a cosmos of unbroken and unbreakable laws.

There is a holiness in mathematics which is more divine than those foolish prayers which Christ called "vain repetitions as do the heathen." (Matt.)

Our dead, it is true, have completed their lives; but (as says Schopenhauer) our dead are still with us; their works, their thoughts, continue, and the fruit of their lives is not dissolved into nothingness. They are ever here among us and take part in the discussion which we carry on. Their fates even after death are also bound under the unalterable law.

It might be answered, that the belief in the irrefragability of law is fatalism; but it is no fatalism; knowledge of the law far from bringing upon us serfdom, liberates us from servitude. Knowledge of the law must not have the effect upon us that we bow in passive submission like slaves under the necessity of the law, but it must stimulate us to conform to the law, to use it, and to master it. Our knowledge of electricity, for instance, does not impose upon us the duty to be obedient to fate and to be killed by the flash of lightning, but it helps us to invent the lightning rod; it liberates us from the evil of the law, it breaks fate, and to the degree that man uses his knowledge he becomes the master of his fate. By calling law divine I do not propose to adore nature; the pagan custom of worshipping God by kneeling down in the dust and other self-humiliating ceremonies must go; but I do propose to respect the laws of nature and to consider them as the basis and the condition of all our ideals.

The sentiment of confidence in the irrefragability of natural laws is no less soothing in anxiety and worry than is the "Islam" to a Mohammedan or the Christian faith to a Christian. I might say that it is a perfect surrogate of the religious sentiment; yet it is more, it is the religious sentiment itself; it is that essential something of the religious sentiment which is true, with the omission of those ingredients which science has taught us to consider as superstition.

The idea of God, if purified by scientific critique, so as to represent some reality (namely the reality of the irrefragable law of nature, especially the higher laws of ethics) is no less natural than are the ideas of justice or virtue or morality. As soon as these higher blossoms on the tree of nature are, as Madame Royer proposes, no longer considered as natural, we shall inevitably drop again into the old dualism which splits the universe in twain, into the lower sphere of natural existence and the higher sphere of supernatural. Divinity, Morality, Goodness, Justice, are indubitable facts; they cannot be described as mere illusions.

Some of the most extravagant free thinkers, it seems to me, have, in this respect, not as yet freed themselves of the old dualistic views. While opposing certain terms of antiquated conceptions, they find no time to attain a monistic view of the universe which does not exclude the higher and the moral laws of life from the realm of nature.

* * *

Concerning my view of the renunciation of the Ego as the basis of all morality I must add a few explanations, because I notice that Madame Royer represents my position as ascetic and pessimistic. The system of morality which I propose is far from being either pessimistic or ascetic. I would perhaps call myself a pessimist if, like Madame Royer, I considered nature not as a harmonious totality but as a collection of individual egotism.

Madame Royer says: "The word egotist is therefore in every sense the starting point of all existence, the first condition in the evolution of each living individual, which only grows, develops, and preserves itself because it loves itself."

Before we proceed, let us in a few words answer the question, What is the soul of man? The soul of man is not an ego which is in possession of ideas; the soul of man is a collection of ideas of which now the one and now the other is most prominent, so as to become conscious and thus to constitute his ego. The ideas of man, which form the elements of his soul, are the representations of objects with which he became acquainted through experience. From these ideas grow the ideas of man, which form the most valuable part of his soul. Ideas originate not otherwise (although in a much more complicated way), than reflex motion takes place upon irritations. Ideas are plans of reflex action, which are intended to effect certain impressions of the outside world, in order to improve the conditions of human existence.

The soul of man, accordingly, his ideas and ideals, are a product of the world. It is a representation of the world, which not inappropriately has been called a microcosm. We must consider the soul as a part of the whole universe, representing, as it were, the microcosm in the conscious life of brain-activity. All ethical aspirations tend to make the human soul greater, nobler, and more powerful. Asceticism is an inversion of ethics, it tends to destroy the greatness, nobility, and power of the human soul.

When I speak of the renunciation of the ego, I do not mean to introduce asceticism. By egotism I understand the excessive love of self which judges everything solely by its relation to one's own individuality; egotism is a habit of forgetting the social and natural conditions which made an individual grow and keeps it growing still; it creates a gulf between the self and the rest of the world, and thus leads to the practice of magnifying one's own importance.

Love of self and the desire of self-preservation are natural

and necessary. But an excessive love of self, which has no regard for the rest of the world, especially for our fellowmen, is not natural. If our actions are dictated solely by egotism, we shall find no satisfaction in life and all our purposes will defeat themselves.

Egotism, or the excessive love of self, is the natural phase of a lower stage in the evolution of soul-life. Those things which are nearest and concern us most, appear of greater importance than others which have no direct influence upon us. It is similar with vision: The objects of our immediate surroundings appear larger than those which are at a remote distance. However, they are for that reason not larger in reality. In a higher phase we learn the laws of perspective. The laws of perspective do not destroy vision; they do not proclaim vision as faulty; they only correct a wrong interpretation of the data of vision; and thus make vision the more effective. If we act as if the things which concern us directly were really larger and more important than other things, if we allow our motives to be swayed by egotism, we are liable to fall into grave mistakes. But if we renounce the error that our ego is the centre of the world, we shall grow in wisdom as well as in moral worth.

Ethics, if based on egotism, will be found to be untenable.* The reason is that man is no individual in the strict sense of the term. Man is not an indivisible entity, a separate being for himself. Man has no ego in the sense the psychologists of the old school imagined, and if man through a mistaken conception of his Self, is solely biased by egotistic motives he will have to, and he ought to, renounce his egotism. Man is a part of a greater whole; he is a member of society; he is a phase in the development of humanity; and at the same time a phenomenon of the whole universe. This consideration must rule supreme over his motives for actions, not to destroy his soul, not to suppress or dwarf its natural growth, but to strengthen and to elevate it.

CURRENT TOPICS.

The recent strike of the London policemen has drawn forth a variety of opinions as to the causes and the consequences of it, and at last we have the sentiment of the burglar interest as to the effect of the strike on that particular branch of industry. Paradoxical as it may seem, the burglar sentiment was very strong in condemnation of the strike, because during the time of its continuance, burglary was extra-hazardous and unprofitable. It so happened that the nominal protection of the police having been withdrawn, the citizens fell back on the right of self-protection, and this proved so bewildering to the burglars in its methods, and so efficient in its action, that they emphatically denounced the strike as altogether unnecessary and unjustifiable on the part of the police. As soon as the strike was declared "off" and the policemen had returned to duty, a very gratifying revival was observed in the burglar trade. Some people outside of London are applying the moral of all this, and the opinion is gaining ground that there are some cities even in America, where a strike of the police would be of great assistance to honesty, liberty, and law.

* * *

Among the rights not delegated to Congress by the Constitution, but reserved to the people, is the right of sticking badges on our clothes. We are a badged people; and when any man badges himself in a special way, he has a right to "have a law passed," prohibiting any other man from imitating that badge. The Grand Army of the Republic has a badge, and a grievance; its badge has been imitated by certain laymen, who were never "at the front."

* My views on ethics are more fully explained in a pamphlet which is just leaving the press: "The Ethical Problem. Three Lectures delivered at the Invitation of the Board of Trustees, before the Society for Ethical Culture of Chicago." The Open Court Pub. Co., Chicago.

At the last session of the Illinois legislature, a bill was introduced making it a criminal offence for any man not a member of the order, to wear the button of the Grand Army. The bill probably did not pass, because otherwise the prisons would be crowded with delinquents. Farragut Post referred the whole matter to a committee which "begs leave to report that there are so many imitations, and what might be fairly called counterfeiters, that it seems necessary that a new design should be provided and adopted by the Grand Army. Among those which are readily mistaken for the Grand Army button, is that of the Culinary Alliance, the Royal Arcanum, the Wah-na-tons, and a few others." The very names of the counterfeiters will arouse public sympathy for the Grand Army. It might be endured that the Royal Arcanum should imitate the button, because the doings of royalty in that regard must be considered as patronage rather than counterfeiting; the Wah-na-tons, being probably Indians, of course must be excused on that account, but when it comes to counterfeiting the Grand Army button by the Culinary Alliance, a confraternity of cooks, the indignity passes the bounds of toleration, and the pathos of the situation will be recognized by all the American people. That a member of the G. A. R. properly badged should be mistaken for a cook, is a matter for the serious consideration of the Grand Encampment at Boston.

How much the school of divinity in which a man has been educated controls his estimate of character! "He was one of God's own people," said a citizen of Chicago, in grateful tribute to the memory of Mr. Pat Sharkey of New York, recently deceased. "He was one of God's own people," he remarked with plaintive sorrow; "His place was a great resort for sporting men of all kinds. Sharkey backed all the rowing men, fighters, and athletes. He lost \$2,700 on Kilrain in the Sullivan-Kilrain fight. Pat kept a saloon at the corner of Thirteenth Street, and was one of the prominent members of Tammany." In addition to these merits it appears that Pat "maintained two households" presided over by different women, each of whom now claims to be his widow. It is rather perplexing that although Pat was "one of God's own people," his body was denied burial in consecrated ground by the clergy of the church to which he belonged; and the reason for this is more perplexing still. Pat was not refused burial in consecrated ground because he kept a resort for sporting men of all kinds, nor because he backed all the fighters, nor because he was a member of Tammany, which in the opinion of some people ought to exclude a man from consecrated ground; nor because of his Mormon practices, but because he had belonged to the several orders known as Freemasons, Knights of Pythias, and Elks. Although there may be some harmless nonsense in their ceremonials, these Orders are provident and benevolent societies, to which any man may innocently belong. The theology of it all is wonderful.

After a hundred years of legislation on all manner of subjects, both in peace and war, the country is now threatened with a Force Bill. The discovery that at last there is a bill in Congress having "force" behind it, is more startling than the finding of pigmy nations by Stanley in darkest Africa. That a law should be endowed with "force" has agitated parties until the lurid speech of partisans has painted politics red. Indignant citizens tread the verge of boycott and rebellion because the American Congress has not embodied in the Federal Elections Bill the policy and precepts of Sir Joseph Porter K, C, B, who, when he was ruler of the Queen's Navy, gave orders that the captains of the British fleet should say "Please," when giving orders to the tars. It is now demanded by fiery and rebellious critics that Congress put "Please" instead of "Penalty" into its laws, after the fashion of the mandate placarded on the walls of a church in Arizona, "Wor-

shippers will please not shoot at the organist, he plays as well as he can." Every law is a Force Bill. A legislative enactment without force behind it, may be persuasion, exhortation, plea; but it is not a law. The Force Bill is an ominous thing, perhaps a dangerous thing, but he is but a superficial statesman who thinks it is only a political makeshift by one party, to be resisted as a political makeshift by the other. The Force Bill is only the symptom of a disease. The malady itself is a relapse of the body politic into the old fever known as the "irrepressible conflict." It is only the sign of a passionate struggle between the Democracy of the Constitution, promising equal rights to all, and the Aristocracy of race, determined that the promise shall never be redeemed. To heal this political distemper will test all our patriotism and all our statesmanship.

Whether a "Force" be good or evil, depends, as Capt. Cuttle says, "upon the application on't"; and this is true in physics as in politics. Force is Nature's faithful servant by which all her work is done, and by which the Cosmos itself is kept in order. Force is the vitality of law, and without it statesmanship is vain. A measure is not to be tested by the force latent within it, or manifest behind it, but by the moral or immoral character of that force. Does it menace right or wrong? Neither is the Force Bill to be tested by the motives of its authors, but by its own qualities. Whether it be designed for justice or for party advantage matters not. The true question still remains, Will it make for justice? We glory in the preservation of the Union, but Force Bills did it. Compulsion met rebellion and vanquished it. The abolition of slavery was to some extent a party measure, like the expedients known as the thirteenth, fourteenth, and fifteenth amendments to the Constitution. What of it? Those amendments are estimated now by their own merits, while the motives of their authors are forgotten. So it must be with Force Bills and bills of every kind. More serious than the Force Bill are the reasons for it. The fault of it lies either in the fourteenth amendment to the Constitution, or in the denial and violation of that amendment; and in this alternative lies one of the hard problems of the future. Either the fourteenth amendment must be repealed or it must be enforced. When laws are made for the protection of the rich and the correction of the poor, the "force" behind them is regarded as their highest virtue; but when passed for the protection of the poor and the correction of the rich, "Society" complains that the "force" principle in the bill is so very coarse and common that its nerves are greatly shocked. Then Society invents a nickname for the bill, and condemns it for its name.

M. M. TRUMBULL.

BOOK REVIEWS.

THE EVOLUTION OF LIFE, or From the Bondage of Superstition to the Freedom of Reason. By Rev. Henry Truro Bray, M.A., LL.D. Chicago: Holt Publishing Company.

The writer of this book was born in England, and, when a boy, emigrated with his father to the United States. He worked hard to support himself and assist his parents. By most praiseworthy courage and perseverance he obtained a college education, and was ordained a priest of the Protestant Episcopal Church. He seems to have been a diligent student, and attained a high degree of scholarship. He worked hard in the ministry, but almost from the beginning he seems to have been tormented with doubts about the truth of the creed he had subscribed and the doctrines which, as a faithful priest of his church, it became his duty to preach. These doubts at last extended far beyond the confines of the Episcopal church and attached themselves to nearly all the essential articles of the Christian religion. After ten years of mental and spiritual struggle he resigned his office in the ministry,

renounced the Christian Church, and in his own language became free. The book describes the painful steps by which he travelled from the "bondage of superstition to the freedom of reason."

The book is well written, and displays a very great deal of learning, especially learning of a theological kind; but Mr. Bray tells the story of his life with too much detail. This becomes tiresome at last, and obscures the genuine merits of the book. There is a good deal of fine pathos in the earlier chapters, and these reveal to us a young life greatly to be admired. The book is a valuable addition to the freethought literature of the day; and to those interested in theological controversy it will be found especially so.

M. M. T.

APPLICATION DE NOUVEAUX INSTRUMENTS DE PRECISION (Cercle Chromatique, Rapporteur et Triple Décimètre Esthétiques)
A L'ARCHEOLOGIE. By M. Charles Henry. Paris: 1890. E. Leroux.

The object of the "Æsthetic Protractor" is to render pleasing forms realizable at will. According to M. Charles Henry's theory the agreeable or disagreeable character of form is allied to the number that characterizes it. In describing a contour the eye unconsciously fixes itself upon this number. The Æsthetic Protractor thus converts numbers into forms and forms into numbers, and by accustoming the eye to exactness it practically constitutes a scientific method of industrial drawing. In this interesting monograph, M. Charles Henry formulates the principal rules of linear and chromatic harmonies, and shows how one might apply the Protractor and Triple Decimetre to the comparison of the three principal types of ancient Greek amphoræ: the types of Cnydus, of Rhodes, and of Thasos. The measures that he applies actually lead to numbers, the character of which agrees with the acknowledged superiority of the amphoræ of Cnydus and of Rhodes over that of Thasos. He defines a series of numbers, which he calls *indicators*, that serve to characterize rigorously any form, by allowing to compose them even in their minutest details. It is further remarkable, that in these amphoræ certain contours, without any relation to the eye, still at times display identical indicators. M. Charles Henry's principles of living dynamics might, accordingly, lead to certain unforeseen, new, and characteristic laws of races and of epochs.

M. Henry asks: Was the psycho-physiological state of the ancients, particularly of the Greeks, perceptibly different from our own? In order to solve this problem, it will be necessary to create a new science of historical psychology.

Greek music, in its melodic wealth and poverty of harmony, in its *ethos* or character, presents incontestable signs of evolution. The author has already mooted this subject in an article published (July 1886) in the *Revue philosophique*, in which he discusses the law of evolution of musical sensation, and seeks to explain the association which the Greeks, contrary to us, established between height and deep sounds, between depth and sharp sounds. The purely objective observation to the effect that a sonorous body in moving away emits an increasingly deep sound, and in approaching an equally increasing sharp sound, seems to have been the origin of the association of ideas of the Greeks. Auditive sensation, accordingly, seems to have been evolved from a more objective character towards a more subjective character, and in our study of Greek music we ought to seek to find the verification of this formula.

Mr. Gladstone and M. Hugo Magnus have maintained that there also took place an evolution in the perception of chromatic differences, and that the contemporaries of Homer did not perceive the most refrangible colors, the green, blue, violet. Was this a purely physiological imperfection, or was it rather psychological; a faulty analysis, caused by a more objective vision, and a less

refined elaboration of the sensation? The author inclines to think, that this fact points to a psychological rather than to a physiological evolution. When we wish to fix with more or less attention an object, we more or less consciously make the visual axes converge in order to fix the image of the object. Now, it is noticeable, that on certain pictures at Pompeii, and on many ancient statues, we perceive a slight divergency of the visual axes, which doubtless influences the "fatal expression" of the physiognomies, and is the expression of a more objective mental state than ours, less conscious, and precisely characteristic of beings, who were not advanced experimentalists, and ignorant of the minute details of modern industrial technique. And a further consequence of this more objective state of thought was their concern about the phenomena of *optic illusions*. More subjective natures, like ours, seek unconsciously by movements of the eyes or the head to correct these errors, that often may be serious from the point of view of the practical consequences, and thus they realize that abstract geometry which artistic minds use to deplore so much in our architecture and in our industrial art. On the contrary, to objective natures it is not the question of drawing lines or angles within strictly true geometrical relations, but rather within apparent geometrical relations, for a certain situation of the eye, more or less fixed, more or less defined. Penrose has dilated upon the corrections to which from this point of view the architects of the Parthenon submitted the rectitude of the columns and walls.

The subjective development of thought has brought about an essential distinction between the *apparent* and the *real*, of which primitive, objective natures are incapable.

There, accordingly, exists only one method to know how sensations, like those of form and color, have been evolved; namely, by comparing carefully from the *æsthetic point of view* the forms and polychromies of the different ages. M. Charles Henry's instruments of precision successfully attain this object, and from this point of view they realize harmonies of form and of colors according to laws that may be regarded as normal. *J. W. V.*

NOTES.

Dr. C. E. Brown Séquard discusses in the *Forum* for August the question "Have we Two Brains or One?" He answers it in the affirmative. Yet he does not explain how unity of consciousness originates from this duality of cerebral activity. The problem is discussed in the article "Localization of Brain Activity," especially in the chapter "The Organ of Consciousness and the Seat of Intelligence," No. 150 of *The Open Court*, p. 2380, et seqq. Consciousness is explained on p. 2382 of *The Open Court* as "a common direction of mind-activity." We have not two souls as Dr. Brown-Séquard seems to suggest, but innumerable elements of soul-life animating the whole organism. Man's soul-activity is concentrated in the two hemispheres and the organic unity of all these souls is constituted by their common action. There is unity of soul-life just as much as there is a unitary direction in the motion of a carriage drawn by two horses. We need neither search for a single unique organ of consciousness as did Descartes, nor must we accept Dr. Brown-Séquard's view of the duality of the soul. We shall find the best explanation of the co-operation of the two hemispheres in the mechanism of vision.

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BY J. H. TEMPLE. . . .

Said the Bee to the Blossom:—"How useful, my friend, Are you pretty flowers on whom we depend For the sweets that support us as the long Winter through." Then the Blossom replied, with a smile and a nod,— "I'm sure you will think it exceedingly odd, But I've frequently had the same thought about you: For without your agreeable visits, my friend, All we blossoms must come to a celibate's end."

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THE ORIGIN OF REASON.

BY T. BAILEY SAUNDERS, M. A. (OXON.)

II.

ROMANES'S DISTINCTION BETWEEN RECEPT AND CONCEPT.

AMONG the distinctions which Mr. Romanes traces between receipts and concepts, the one which is the most important and also the most fatal to his argument, arises when he attempts to distinguish between the faculty of abstraction where it is not dependent on language (as he asserts to be the case with receipts), and where it is so dependent (as in concepts); or, as he puts it, between the act of compounding the idea, and the further and distinct act of giving it a name. Mr. Romanes is surprised that this large and important territory of ideation lying between the other two, (the memory of a particular percept and the formation of a concept,) is, so to speak, 'unnamed ground': so he coins the word *recept* to express this intermediate mental process, which he says differs from a concept only by not being joined with a name. This receptual image, which is afterwards significantly styled pre-conceptual, is then made to perform its duty whenever any gap has to be bridged over between man and brute.

The truth is that this intermediate process, this 'unnamed ground' has, in reality, no independent existence. For the recept is either an image attached to particular sensuous experiences, that is to say, is itself one of those particular sensuous experiences and never rises above them, being at most a memory; or else it is an abstraction from sensuous experience, an abstraction which can be manifested only by and in the giving of a name. As Mr. Romanes himself quotes from M. Taine, 'the formation of our abstract ideas is nothing but a formation of names.' If, then, the recept has a name, it is a concept; if it has no name, it is no more than a percept, a sensation. *Tertium non datur.*

If anyone wishes to test the truth of this, let him try to think of any quality at all, or of any idea, apart from the object which presents it, without at the same time naming it. It will be seen that such a quality, such an idea, can have no independent existence for our thought, except in so far as we name it. The Greek language embodies this truth when it uses the

one word *logos* to express both the power by which we combine and separate the presentations of sense, and the sign which we use for the result of that process; that is, when it makes words the outward signs of the binding force of the mind.

Mr. Romanes sometimes writes as if a receipt and a concept answered to two different degrees of abstraction. There is no such thing as a degree of abstraction, for there is no such thing as a degree of naming; there are only the degrees of connotation and denotation of the name which stands for the abstract idea, degrees which, as the text books tell us, vary inversely. And when Mr. Romanes goes so far as to give the name of *generic idea* to his recept, reserving for the concept the ordinary word *general*, it may well be doubted whether in this 'verbal as well as substantial analogy' he is not introducing the elements of psychological confusion. For he describes a recept as 'generated as it were spontaneously or automatically by the principles of mere perceptual association.' Generated out of what? Out of percepts. But the only way in which we can rise above percepts, or generate anything out of them, is to give names; and to give names, in this sense, is, as we have seen, to form concepts. So that, when he talks of a 'receptual name,' he is only trying to evade the difficulty by putting it further back; for a receptual name (in the sense in which he uses the word) is nothing but a concept; a concept it may be, of very inadequate connotation, that takes note only of salient external resemblances, but still a concept.

There is, however, a sense in which the use of the word 'recept' may be justified, but it is a sense foreign to the purpose for which Mr. Romanes in general employs it, though in one passage (pp. 65-66) he appears to come within measurable distance of this sense of the word. He has ventured, as we have seen, to describe the mind as being in a passive state in the case of a recept, and if he had made this passive state an antecedent instead of a consequent of the perceptual stage, he would have been nearer the true psychology of the matter. For it is only in regard to *sensations* that the mind can, with any approximation to truth, be described as in a passive state; and even then it cannot be entirely passive. The true order of mental process is *recept*, *percept*, *concept*, as may be seen

clearly by taking as an illustration the condition of the mind in which it most nearly approaches a passive state. When the eyes of a new-born baby first open upon the world, it is extremely probable that the earliest impression it receives, its first receipt, is a confused blur, which differentiates gradually into light and shade. Light and shade are thus its two first percepts, though to subsequent experience they in their turn become receipts, which again differentiate into further percepts, into distinction of the various objects about it. And when an object is presented which the child has never seen before, but externally resembling some former experience, it receives a similar sensation, and extends to it the name given to its former experience. In other words, it takes note of external resemblances only, just as an adult does in the presence of an unfamiliar object. How often one hears it said: "I don't know what that can be; it looks like such and such a thing." The sovereign and the bright farthing have for the mind that takes note of external resemblances only, the same value; if that value is named, it is something that *glitters*, a very low order of concept, but still a concept. As Dr. Ward* puts it, "thinking starts with such mere potential generality as is secured by the association of a generic image with a name; so far the material of thought is always general."

One's whole life is thus a long process of differentiation, of separating, of analyzing receipts into percepts. By sifting the impressions of sense and recombining their results ideally, that is, by means of language, we pass to concepts; so that the progress of knowledge, from a psychological standpoint, is but one more illustration of that well-worn phrase, *thesis, analysis, synthesis*. Only to those animals who are possessed of language is a synthesis possible.

Of course, it is clear that if we are to understand by this word *language* the sign-making faculty in general, we shall have to allow that other animals but man are possessed of language. But if by language we mean *logos*, speech, the power of making signs as the marks of abstract ideas—and this is the true use of language—we mean a faculty to which no animal but man has ever yet attained.

Now it is an attribute of a conceptual name that it can constantly increase its connotation, and Mr. Romanes considers that what he calls 'receptual names' can also undergo a similar extension of meaning. As has been pointed out, a 'receptual name' is nothing and can be nothing but a concept; but let us nevertheless consider Mr. Romanes's example, 'A talking bird,' he says, 'will extend its denotative name,' (i. e., a name of the receptual kind,) 'from one dog in particular to any other dog which it may happen to see';

and he argues that if a parrot's intelligence were greater than it is, it would extend the same receptual name to images and pictures of dogs. It is well known that a parrot can be taught to say 'bow-wow' when it sees a particular dog, or can perhaps imitate the dog's bark without any teaching; and if a parrot says 'bow bow' to a different dog, that is sufficiently explained by the memory of the former dog being revived, and with it the sound with which it was associated. No one can pretend that in this extension of name the parrot approaches a conceptual use of it, or rises at all beyond the limits of revived sensuous experience.

It should never be forgotten, and there is no harm in repeating the fact too often in any discussion of this nature, that in talking of the mind of animals we are led purely by analogy; that our illustrations are taken chiefly from domesticated pets, probably of a kind which has long lived in the company of man, and that in looking into their faces we are very apt to read our own thoughts.

When Mr. Romanes passes to the case of a very young child, and when he finds that it presents mental phenomena similar to those which he observes in dogs and parrots at an age at which it can exhibit no power of conceptual thought, he proceeds to argue that because the child afterwards attains this power, therefore this power differs only in degree from faculties possessed by the lower animals—a method of argument of which it need only be said, in the words already quoted from Mr. Wallace, that it takes for granted that 'the later stages of an apparently continuous development are necessarily due to the same causes only as the earlier stages.'

In dealing with the evidence which the science of language constitutes in support of the evolutionist position, Mr. Romanes again uses an argument from analogy, and strongly and rightly insists upon the probability that as the *growth* of language is everywhere subject to a gradual development, so also it must owe its *origin* to some process of evolution; or, in Geiger's words, 'language diminishes the further we go back in such a way that we cannot forbear concluding it must once have had no existence at all.' And Mr. Romanes is careful to illustrate this law of development, as far as concerns the growth of language, by a useful summary of the various views held on the subject by several well-known philologists. But he goes on to assert that, as the result of his arguments, 'we have a proved continuity of development between all stages of the sign-making faculty'; and that therefore there is no distinction of kind between the sign made by an animal and the fully developed language of man. Here again what distinction there may appear to be is bridged over by the un-

* *Encyclopædia Britannica*. Ninth Edition, s. v. Psychology.

tenable hypothesis of a 'receptual sign' as something distinct from a conceptual name.

For, in asserting that the kind of classification with which receipts are concerned is that which lies nearest to 'the automatic groupings of sensuous perception,' and that those roots of language which have been discovered by the researches of philologists, present the names for actions and processes immediately apparent to the senses, Mr. Romanes is only expressing in a roundabout way a fact which nobody doubts, the fact, namely, that the first concepts, or, as he likes to call them, the first named receipts, are of a very low order of connotation. If the science of language has proved anything, it has proved *ad nauseam* the growth of concepts, the gradual extension of their meaning, and that accordingly there must have been a time at which concepts conceived or connoted only those features which could be easily seen and recognized.

Mr. Romanes admits that in discussing the origin of language, in the true sense of the term, it is important to observe that the protoplasm, so to speak, is not the word but the sentence; that is to say, that language begins in predication, in a sign conveying a conceptual meaning. This sentence-word, once formed, can be and is afterwards modified by tone, gesture, demonstrative and pronominal affixes, which again differentiate into what we call 'parts of speech.' Now, it is a remarkable fact that this sentence-word, which is the simplest element of thought, the last residuum in the philological crucible, turns out to be a concept. Mr. Romanes attempts to explain away the significance of this fact by asserting that these radical concepts are ultimate only in the sense of being primeval: for, as he says, only those words which had some degree of connotative extension would have had any chance of surviving at all. To this it may be answered that no onomatopoeic theory is sufficient to explain the origin of other than perceptual signs. It is as futile to assert that these can develop of themselves into concepts as it is to plant nails and expect them to grow.

The question, then, of the origin of the human faculty is thus brought back to the origin of concepts. It is indeed no explanation of their origin to assert, in opposition to the evolutionist theory, that they arise in that binding power of the mind, the outward manifestation of which is language; or that concepts are the fruit of the logos, and that the logos is a conceptual faculty; for this is either mere tautology or an argument in a circle.

There is, however, a theory as to the nature and origin of concepts which has claimed some general attention in the last two or three years, chiefly perhaps from the fact that Professor Max Müller has made himself the champion of it. It is the theory put for-

ward by Professor Ludwig Noiré—whose recent death is a great loss to all genuine philosophical study—and systematically propounded in his *Logos: Origin and Nature of Concepts*, published in 1885. In Professor Max Müller's *Science of Thought*, Noiré's theory is eloquently defended as the only explanation of the origin of language at all adequate to explain the facts; and since this distinguished writer stands out for the identity, or, at any rate, the inseparableness of language and thought, it certainly looks as if he would regard this theory as throwing as much light as can be thrown upon the true origin of thought, and as so far solving the question of the origin of the human faculty. And in his most recent work, the Gifford Lectures on *Natural Religion*,* he brings the same subject up again in the evident assurance that this theory alone comes near the truth of the matter. Still, an expectant reader, a reader, let us say, who is on the lookout for any traces of the true evolution of mind, cannot help detecting here and there, if not a little uncertainty, at least some reluctance to pronounce clearly that here we have the missing link in the development of distinctively human intelligence. It is true that Professor Max Müller speaks of this theory of Noiré's as accounting for 'the first germ of conceptual thought,' as explaining 'the natural genesis of concepts'; but he adds that the theory is 'the only one which approaches or touches the hem of the problem that has to be solved, namely, how concepts arose, and how concepts were expressed' (p. 374). And in another passage he makes use of a language which can hardly be called positive. 'No doubt,' says he, 'it is a suggestion and no more, for who would dare to speak with positive certainty on matters so distant from us in time, and still more distant from us in thought? All we can say is that such a suggestion would fulfil three essential conditions; it would explain the simultaneous origin of concepts and roots; it would account for their intelligibility among fellow-workers; and it would explain what has to be explained, viz., conceptual, not perceptual, language; language such as it is, not language such as it might have been. If any one has anything better to suggest let him do so; if not, *his utere mecum*,' (p. 211). Let us next proceed to examine this theory.

(TO BE CONTINUED.)

WORDSWORTH'S INTERPRETATIONS OF NATURE.

BY ALVAN F. SANBORN.

INVISIBLE kingdoms encompass us. It may be a very homely or a very trifling thing that first renders the hitherto unused spiritual eye sensitive to the wonders of these realms of infinite beauty. It may be the

* *Natural Religion*. The Gifford Lectures delivered before the University of Glasgow, in 1885. Longmans, 1889.

boy's first love for a playmate, pregnant as was Dante's love for Beatrice with glorious possibilities; it may be the passionate possession of a squeaking fiddle or a wheezy flute; it may be only the careless moulding of a piece of soft putty, or the roguish caricaturing of a school teacher, when his back is turned. Or it may be something far grander—the music of a Chopin or a Wagner, the painting of a Turner, the sculpture of a Thorwaldsen, the architecture of a Richardson. It may be poetry. True poetry always rends the veil between the seen and the unseen, if we but yield ourselves to be tossed on its rhythmic surging, to be agonized by its wailings; to be thrilled by its palpitations, to be exalted by its sublimity. The lyricism of Shelley, the sublimity of Milton, the joy of the Psalms, the passion of Byron, the onset of Scott, the philosophy of Browning, the insight of Emerson, lead each and every one to realms of varying size and splendor but of characteristic beauty. Wordsworth too, has his realm; it is the realm of glorified nature.

Wordsworth was a child of Nature, and he never outgrew his childhood. Through his whole life he clung to her, learning continually at her knee. So it is not strange that in his descriptions of her he is realistic beyond any other poet. Ruskin cannot praise him enough for revealing such of her aspects as one is ashamed not to have noticed before when once his attention has been called to them. He is especially delighted with Wordsworth's skies and clouds because they are so rarely correctly treated, but his water and mountains are no less true. The poet is especially gifted in projecting a whole scene by a single turn of expression, as in "Tintern Abbey":

"Once again I see
These hedgerows, hardly hedgerows, little lines
Of sportive wood run wild."

In the Great Ode:

"The moon doth with delight
Look round her when the heavens are bare."

In "Nutting":

"Perhaps it was a bower beneath whose leaves
The violets of five seasons reappear
And fade unseen by any human eye."

That Wordsworth loved the Nature he so faithfully described is beyond all question, and the love he bore was a growing love, ever varying, ever widening, ever deepening, as he came into closer and closer relations with its object. In boyhood it was largely physical; in mature manhood it was essentially spiritual. How the physical became the spiritual is developed at considerable length in "The Prelude," but these lines from that microcosmic "Prelude" "Tintern Abbey" hint at the process:

"And I dare to hope
Though changed, no doubt, from what I was when first
I came among these hills; when like a roe
I bounded o'er the mountains, by the sides
Of the deep rivers, and the lonely streams

Wherever nature led: more like a man
Flying from something that he dreads than one
Who sought the thing he loved. For Nature then
(The coarser passions of my boyish days
And their glad animal movements all gone by)
To me was all in all. I cannot paint
What then I was. The sounding cataract
Haunted me like a passion; the tall rock,
The mountain, and the deep and gloomy wood,
Their colors and their forms, were then to me
An appetite: a feeling and a love
That had no need of a remoter charm
By thought supplied, or any interest
Unborrowed from the eye. That time is past
And all its aching joys are now no more,
And all its dizzy raptures. Not for this
Faint I, nor mourn, nor murmur; other gifts
Have followed, for such loss, I would believe,
Abundant recompence."

What those other gifts were we shall see later. But this "appetite" he here describes is akin to the passion of the sailor for the sea—a passion that puts him almost beside himself if he is long detained on land. It is embodied in "The Revelry of Poor Susan" and in this from "The Farmer of Tilsbury Vale":

"In the throng of the town like a stranger is he,
Like one whose own country's far over the sea;
And nature while through the great city he hies,
Full ten times a day takes his heart by surprise."

We called Wordsworth realistic. So he is. But his realism is a realism of suggestion rather than detail, and like all true realism has its beginning and end in idealism. And it is upon this idealism in his *interpretations* of nature rather than his *descriptions* of nature (so far as description and interpretation can be distinguished) that Wordsworth's title to seership depends. All his other claims upon our love and admiration are overshadowed by this. It is for this reason that the sympathetic spirit bows itself before him not in empty adulation but because the light upon his countenance shows that he has been with God. Moses communed with God on the "Mount of the Law" and brought his words to the people. All nature is to Wordsworth a Mount Sinai, and the presence he is conscious of he reveals in words like these:

"To every form of being is assigned
An active principle; how e'er removed
From sense and observation it subsists
In all things. In all nature; in the stars
Of azure heaven, the onending clouds,
In flower and tree, in every pebbly stone
That paves the brooks, the stationary rocks,
The moving waters and the invisible air.
Whate'er exists hath properties that spread
Beyond itself communicating good,
A simple blessing or with evil mix'd.
Spirit that knows no insulated spot,
No chasm, no solitude; from link to link
It circulates the soul of all the worlds."

The active principle is God and is something more than force, it is a living presence.

"And I have felt
A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean, and the living air,
And the blue sky, and in the mind of man:

A motion and a spirit, that impels
All thinking things, all objects of all thought,
And rolls through all things."

To his mind every movement in all nature is the movement of God, for he is in all and through all. God speaks to him in the whirlwind, God speaks to him in the mountains, in the cataracts, in the heavens, but God speaks to him equally in the cuckoo, the daisy, and the celandine, in the still small voice.

"To me the mearest flower that blows can give
Thoughts that do often lie too deep for tears."

is the expression of his own feeling; while on the other hand the characterization of Peter Bell,

"A primrose on the river's brim,
A yellow primrose was to him,
And it was nothing more."

"The soft blue sky did never melt into his heart
He never felt the witchery of the soft blue sky,"

describes those for whom Wordsworth has not yet drawn aside the veil that shuts off nature's holy of holies. It is not a matter of theology or philosophy with him, he has no written creed, but he feels God, he sees God, he hears God. Nature is only the garment of God, and beneath its thin film he sees pulsating the life which has been through the eternities.

"O Nature!—Or what is Nature?" says Carlyle:
"Ha! why do I not name thee God? Art not thou the Living Garment of God?"

How does he see God manifested in Nature? in its life, in its harmony, in its sublimity, in its joy. There is no death. God is life, God is in everything; life is in everything. It is mysterious this life, but its mystery is its revealing. The waters, they are not dead; they have messages for our eyes, for our ears for our feelings. The mountains, they are not dead; we can say with the Psalmist, "I will lift up mine eyes to the hills from whence cometh my strength." The heavens are not dead—they are full of universes circling about in dizzy rapture. The birds, the flowers, the very rocks are throbbing with this life.

God in nature who finds his expression in omnipresent life, finds his expression also in the harmony of that life in all its varied processes. This harmony is in very truth the music of the spheres. There is love and fellowship and sweet communion between the forms of nature; all interdependent, and all dependent upon the law of love—the happiness of one, the happiness of all. It is the unity of the organism exquisite in its perfect oneness. Take this example from the "Address to Kilburn Castle,"

"Oh! there is life that breathes not; Powers there are
That touch each other to the quick in modes,
Which the gross world do sense hath to perceive,
No soul to dream of."

Also this from "Stray Pleasures,"

"The showers of the spring rouse the birds and they sing,
If the wind do but stir for his proper delight,
Each leaf, that and this, his neighbor will kiss;

Each wave, one and t'other speeds after his brother,
They are happy for that is their right."

This is not mere fancy. It is not figurative, it is actual. Nature's forms are alive, they do feel, they do commune with one another. But this is a revolutionary thought, and the people shrug their shoulders and turn their faces backward to the good old time, with its argument from design and its materialized spirits. With truth-like majesty and contempt for such frippery they draw themselves within the shell of dogmatism, proud of their own self-sufficiency. If they would, like Nathanael at the bidding of the Master, only come and see, they would find themselves in an invisible kingdom of matchless beauty and perfect peace, and the light thereof God the Universal.

As there is harmony between the different forms of nature and communion too, so there is harmony and communion between these parts and the whole—the one universal spirit that pervades them all. And this communion takes the form of praise as an expression of its joy. Nature is one grand Doxology to the pervasive spirit in which it lives and moves, and has its being. Listen to the song of nature's joy:

"The cataracts blow their trumpets from the steep;
I hear the echoes from the mountains throag.
The winds come to me from the fields of sleep,
And all the earth is gay;
Land and sea
Give themselves up to jollity,
And with the heart of May
Doth every beast keep holiday."

And from the "Leech-gatherer":

"All things that love the sun are out of doors;
The sky rejoices in the morning's birth;
The grass is bright with rain drops; on the moors
The hare is running races in her mirth.
And with her feet she from the plashy earth
Raises a mist; that glittering in the sun,
Runs with her all the way, wherever she doth run."

God is present in Nature's life and joy, but He is also present in tranquility, tenderness, and calmness. God is life, God is love, God is peace; and the peace of God which in the fulness of its sublimity passeth all understanding becomes partially manifest in nature. Wordsworth surely felt "the breathing balm, the silence and the calm of mute insensate things," if ever man did. And we too cannot but feel it, though imperfectly no doubt, in reading such lines as these:

"Look round; of all the clouds not one is moving,
'Tis the still hour of thinking, feeling, loving,
Silent and steadfast as the vaulted sky,
The boundless plain of waters seems to lie;—
Comes that low sound from breezes rustling o'er
The grass crowned headland that conceals the shore?
No 'tis the earth-voice of the mighty sea,
Whispering how meek and gentle he can be."

Or these:

"It is a beautiful evening, calm and free;
The holy time is quiet as a sea,
Breathless with adoration; the broad sun
Is sinking down in its tranquillity;
The gentleness of Heaven is on the sea;
Listen the mighty being is awake
And doth with his eternal motion make
A sound like thunder everlastingly."

Thus does nature declare the glory of God ; yet not to every one, only to him who shows himself worthy of her confidence, only to him who approaches her in a spirit of reverence, such reverence as he ought to have in the presence of the Almighty. If he comes in this spirit, though he but touch the hem of nature's garment, he will feel, within, the power of the Spirit.

"By grace divine not otherwise,
O nature we are thine."

This influence is expressed in the "Lines to my Sister."

"Love, now an universal birth
From heart to heart is stealing,
From earth to man, from man to earth,
It is the hour of feeling.

One moment now may give us more
Than years of toiling reason:
Our minds shall drink at every pore,
The spirit of the season."

And to the believer, when once Nature has taken him into her confidence, there is no more any phenomenal nature, inasmuch as it has become a feeling, sinking into the very depths of the soul ; just as a beautiful face, or a photograph of a beautiful face, ceases to be face or picture under some circumstances, and becomes sentiment. By what mystery of working this transformation is effected—who shall say? Yet difficult of explanation as it is, we are forced to recognize it in some form or other every day we live. Hear how Wordsworth himself expresses it in the second book of the Prelude :

"Oh, then the calm
And dead still water lay upon my mind
Even with a weight of pleasure, and the sky
Never before so beautiful, sank down
Into my heart, and held me like a dream."

And so in the lines beginning, "There was a boy—":

"Then sometimes in that silence, while he hung
Listening, a gentle shock of mild surprise
Has carried far into his heart the voice
Of mountain torrents ; or the visible scene
Would enter unawares into his mind
With all its solemn imagery, its rocks,
Its woods, and that uncertain heaven received
Into the bosom of the steady lake."

And in the first book of the "Excursion":

"Sound needed none
Nor any voice of joy; his spirit drank the spectacle;
Sensation, soul and form all melted into him, they swallowed up
His animal being, in them did he live
And by them did he live; they were his life.
In such access of mind, in such high hour
Of visitation from the living God
Thought was not, in enjoyment it expired."

As nature sinks into the heart and fills it to overflowing with praise and thanksgiving to God, all baser thoughts and feelings are banished. They cannot endure the light of His presence. So let the soul keep full of God, and it will have peace.

"Whate'er in docile childhood
We had imbibed of fear and darker thought
Was taken all away."

In the "Brothers" the Priest says: "The thought of death sits easy on the man who has been born and bred among the mountains."

These pictures become sentiment but they become more than that, they become *soul*. They are not like the color lingering in the sky after a gorgeous sunset, that grows fainter and fainter till it leaves the clouds looking duller than before it entered them. They may be written in invisible ink but the occasion never fails to render them distinct and they can perish only with the soul itself. In the words of St. Paul, Wordsworth may say: "For I am persuaded that neither death, nor life, nor angels, nor principalities, nor powers, nor things present, nor things to come, nor height, nor depth, nor any other creature shall be able to separate us from the love of God"; and for Wordsworth it would be no blasphemy to add, "which is in Nature our Lord."

I suppose there is no soul that does not remember some moments when God seemed nearer than he was wont to seem. Perhaps it was when after some childish fault his mother prayed with the offender that God would forgive her boy; perhaps it was one of those supreme moments when the youth found himself beloved; or it may have been the equally precious, though chastening one, when he found his love was not requited, but when he choked down all bitterness in his heart and said: "Thy will be done;" as Alexander H. Stephens made the motto of his life "*revenge reversed*" and in that act became a man. As these moments abide in our lives "the sweet presence of a good diffused and in diffusion ever more intense," so in Wordsworth's view do scenes of nature.

"These beauteous forms
Through a long absence, have not been to me
As is a landscape to a blind man's eye;
But oft, in lonely rooms, and 'mid the din
Of towns and cities, I have owed to them,
In hours of weariness, sensations sweet,
Felt in the blood, and felt along the heart;
And passing even into my purer mind,
With tranquil restoration:—feelings too
Of unremembered pleasure; such perhaps
As have no slight or trivial influence
On that best portion of a good man's life,
His little nameless unremembered acts
Of kindness or of love. Nor less I trust
To them I may have owed another gift
Of aspect more sublime; that blessed mood
In which the burthen of the mystery,
In which the heavy and the weary weight
Of all this unintelligible world
Is lightened:—that serene and blessed mood
In which the affections gently lead us on
Until, the breath of this corporeal frame
And even the motion of our human blood
Almost suspended, we are laid asleep
In body, and become a living soul;
While with an eye made quiet by the power
Of harmony, and the deep power of joy
We see into the life of things.

If this
Be but a vain belief, yet O! how oft,
In darkness, and amid the many shapes
Of joyless daylight; when the fretful stir
Unprofitable, and the fever of the world
Have hung upon the beatings of my heart,
How oft in spirit have I turned to thee

O sylvan Wye! Thou wanderer through the wood
How often has my spirit turned to thee."

And this which shows not only their permanence but their intensity:

"For she can so inform
The mind that is within us, so impress
With quietness and beauty, and so feed
With lofty thoughts, that neither evil tongues,
Rash judgements, nor the sneers of selfish men
Nor greetings where no kindness is nor all
The dreary intercourse of daily life,
Shall e'er prevail against us or disturb
Our cheerful faith that all which we behold
Is full of blessings."

Thus has Wordsworth interpreted Nature to us; interpreted it with all a prophet's fiery words and with a lover's heart.

Ruskin says that: "supposing all circumstances otherwise the same with respect to two individuals the one who loves Nature most will always be found to have more faith in God than the other." Communion with Nature is communion with God. Here then is a sufficient basis for religion.

"Sometimes his religion seemed to me
Self-taught as of a dreamer in the woods;
Who to the model of his own pure heart
Shaped his belief as grace divine inspired,
And human reason dictated with awe."

Theologians who appeal to the Bible as the *only* rule of faith and practice, if there are still any such, can consistently see in such religion only a delusion and a snare. And yet Hudson says that Wordsworth is the "most spiritual and the most spiritualizing of all the English poets, not Shakespeare no nor even Milton excepted," and tells of an old college professor who used to read Wordsworth on his knees. God bless the good man! Why shouldn't he? It argues his fine appreciation. He must have had some experience of the poet's practical religious helpfulness. This world is full of thirsty souls. They know not where to find the living water. Without guidance they are likely to pursue deceitful mirages or seek refreshment in bitter water that only intensifies the thirst. Many of these thirsty souls will be guided to the visible church and will find there—as many more have found in the past—draughts that truly satisfy. But there will be a few—shall I say the choicer spirits?—whom the church as it is cannot satisfy. For the stream of the water of life from which the church bids them drink, befouled as it is with filthy "*Aberglaube*"—the sewage of the centuries—offends their delicate taste. They turn away in disgust. And no wonder. They were seeking the rill that flows direct from the Fount of love and truth and find instead a stream of intolerance and superstition. In the nature of things Wordsworth can never satisfy the masses, but these more fastidious natures he may satisfy. Perhaps they are so constituted as to be more susceptible to English than to Jewish prophets. In which case it becomes the duty of the man who sees in Wordsworth a revela-

tion of God to turn men to him as it is the duty of one who sees in the Bible a similar revelation to turn men thither. Not that Wordsworth has revealed all truth. There may be other manifestations of God equally beautiful with those in nature; there may be other forms of communion just as precious as communion through nature. And these other manifestations and forms of communion have already found or will find their revealers. Far be it from me to judge who among these different interpreters has done the noblest work. "For now there are diversities of gifts but the same spirit." Whether Wordsworth is the greatest or the least of the brotherhood of seers I know not, and I care not. It is enough

"That he was a priest to us all
Of the wonder and bloom of the world,
Which we saw with his eyes and were glad."

THE FICTIONS OF FICTION.

BY HELEN H. GARDNER.

[CONCLUDED.]

ONE of the most insidious fictions of fiction which it seems to me is harmful, is the theory that the good are so because they resist temptation, while the bad are vicious because they yield easily—make a poor fight.

Leaving out heredity and its tremendous power, it is likely that you would have yielded under as strong pressure as it took to carry your neighbor down.

I say as strong pressure—not the *same* pressure—for your tastes not being the same, your temptations will take different forms. If you had been born of similar parents and on Cherry Hill; if you had been one of a family of ten; if you had been stunted in mind and in body by the want of nourishment; if you had been given little or no education; if you had helped to get bread for the family almost from the time you could remember; your record in the police court would not differ very greatly from that of those about you. In nine cases out of ten you would be where you sent that convict last year. Your pretty daughter would be the associate of toughs. She might be pure—in the sense in which the word is applied to women—but she would have a mind muddy and foul with the muck and odors of a life fit only for swine. She would marry a brute who honestly believes that so soon as the words of a priest or a magistrate are said over them, she belongs to him to abuse if he sees fit, to impose upon, lie to, or to let down into the valley of death for his pleasure whenever he sees fit, and quite without regard to her opinions or desires in the matter. She would be an old and broken woman at thirty, ugly, misshapen, and hopeless, with hungry-faced children about her, whose next meal would be a piece of bread, whose next word would be too foul to repeat, whose next act would disgrace a wolf.

In turn they would perpetuate their kind in much the same fashion, and some of your grand children would be in the poor-house, some in prison, some in houses of ill repute, and perchance some doing honest work—sweeping the streets or making shirts for forty cents a dozen for the patrons of a literature that goes on promoting the theory that the chief duty of the poor is to irresponsibly bring more children into the world—to work for them as cheaply as possible. To the end that they may restrict their own families to smaller limits and—by means of cheaper labor caused largely by over-population *from below*—clothe their loved ones in purple and build untaxed temples of worship, where poverty and crime is taught to believe in that other fiction of fictions—the providence that places us where we *deserve* to be and where a loving God wishes us to be content.

Indeed, this supernatural finger in literature has gone farther, perhaps, to place and keep fiction where it is as a misleading picture of life and reality than has any other influence. It has dominated talent and either starved or broken the pen of genius. "Oh, if I might be allowed to draw a man as he is!" exclaims Thackeray, as he leaves the office of his publisher, with downcast eyes and bowed head. He goes home and "cuts out most of his facts," and returns the manuscript which is acceptable now, because it is *not* true to life!

Because it is now fiction based upon other fiction and has eliminated from it the elements of probability which might have been educative or stimulating or prophetic. Now, Thackeray was not a man who would have mistaken preachments for novels if he had been left to his own judgment; neither would he have painted vice with a hand that made it *attractive*, but he chafed under the dictum that he must not hold the mirror up to the face of nature, but must adjust it carefully so as to reflect a steel engraving of a water color from a copy of the "old masters."

It might be well if silver dollars grew on trees and if each person could step out and gather them at his pleasure; but since they do not, what good purpose could it serve if fiction were to iterate and reiterate that such was the case, until people believed that it was their trees which were at fault and not their fiction?

It might be a good idea, too, if babies were born with a knowledge of Latin and Mathematics, but to convince young people that such is the case and that they are pitiful exceptions to a general rule, is to place them at a humiliating disadvantage at the outset.

It is one of the most firmly rooted of these fictions of fiction, that such tales as I have mentioned above are "good reading—safe, clean literature" for girls. Nothing could be farther from the facts. Indeed, the

outrage about girls not being allowed to read this or that, because it deals with some topic "unfit" for the girls' ears, is another fiction of fiction which robs the girl of her most important armor—the armor of truth and the ability to adjust it to life.

A famous man once said in my presence—"The theory that to keep a girl pure you must keep her ignorant of life—of real life—is based upon a belief degrading to her and false as to facts. Some people appear to believe that if they keep girls entirely ignorant of all truth, they will necessarily become devotees of truth, and if you could succeed in finding a girl who was a perfect idiot, you would find one who was also a perfect angel."

"We are a variegated lot at best and worst," said a lady to me the other day, when discussing the character of a man who is in the *public* eye, "I know a different side of his character. The side I know I like. The side you know is so different." But in fiction he would be all one way. He would be a scamp and know it, or he would be a saint—and know that too. The fact is he is neither and we *are* a variegated set at best and worst. Why not out with it in fiction and be armed and equipped for character and life as it is?

There is a school of critics who will say this is not the province of fiction. Fiction is to entertain, not to instruct. With this I do not agree—only in part. But accepting the standard for the moment, I am sure that a picture of life as it is, is far more entertaining than is that shadowy and vague photograph of ghosts taken by moonlight, which "safe stories for the young" generally present.

But to enumerate the fictions of fiction would be to undertake an arduous task—to comment upon them all would be impossible.

How much remorse—how many heartbreaks—have been caused by the one of these which may be indicated briefly in a sentence thus—"Stolen pleasures are always the sweetest."

"She sullied *his* honor," "He avenged his sullied honor," and all the brood of ideas that follows in this line have built up theories and caused more useless bloodshed and sorrow than most others. No wife can stain the honor of her husband. He only can do that, and it is interesting to note the fact that he who struts through fiction with a broken heart and a drawn sword "avenging" said honor, seldom had any to avenge, having quite effectively divested himself of it before his wife had the chance.

"She begged him to make an honest woman of her." What fiction of fiction (and, alas of law—) could be more degrading to womanhood—and hence to humanity—than the idea here presented? The whole chain of ideas linked here are vicious and vicious only.

Why sustain the fiction that a woman can be elevated by making her the permanent victim of one who has already abused her confidence, and now holds himself because of his own perfidy—as in a position to confer honor upon his victim? He who is not possessed of honor cannot confer it upon another. "The purity of family life" is another fiction of fiction which never did and never can exist, where based upon a double standard of morals. That there ever was or ever will be a "union of souls" in a family where a double standard holds sway, or that women are truthful or frank with men upon whom they are dependent, are fictions; it were time to face and controvert with facts. Dependence and frankness never co-existed in this world in an adult brain—whether it were the dependence of the serf or of the wife or daughter, the result is ever the same. The elements of character which tend to self respect and hence to open and truthful natures, are not possible in a dependent—or in a social or political inferior. Do the peasants tell the lord exactly what they think of him, or do they tell him what they know he wishes them to think?

Did the black men, while yet slaves, give their own unbiassed opinion of the institution of slavery to the master? Not with any degree of frequency. The application is obvious.

Another of the fictions of fiction upon which the vicious build, and which has disarmed thousands before the battle, is the insistency with which the idea is presented that a man (or woman) who is honestly and truly and conscientiously religious, is therefore necessarily moral or honorable; that he is a hypocrite in his religion if he is a knave in his life. Observation and history and logic are all against the theory. Some of the most exalted religious men have been the most wholly immoral. It was honest religion that burned Servetus and Bruno. It was not hypocrisy who hunted witches. It is not hypocrisy that draws its skirts aside from a "fallen" sister, and immorally marries her companion in illicit love to purity and innocence. Do you know any father (or many mothers) in this world who would refuse to allow a son, whom they knew to be of bad character, to marry a girl who was as pure and spotless and suspicionless as a flower? "She will reform him," they say. "It will be good for him to marry such a girl." And how will it be for her? Does the religious man or woman not take this view of morals? Have right and wrong sex? Is honor and truthfulness toward others limited in application? Have you a right to deceive certain people for the pleasure or benefit of other people? If so where is the boundary line? Would the girl marry you or your son if she knew the exact truth—if she were to see with her own and not with your eyes—all of your life? Would you be willing to take her with you or for her

to go unknown to you through *all* the experiences of your past and present? No! Would you be willing to marry her if she had *exactly* your record? No! You truly believe then that she is worthy of less than you are? Honor does not demand as much of you for her as it does of her for you? You would think she had a right—you would not resent it if her life had been *exactly* what yours was and is, and if she had deceived you? Is that which is coarse or low for women not so for men? Why is it that men will not submit to, coming from women, that which they impose upon women whom they "adore" and "truly respect?"

Would women accept this sort of respect and adoration if they were not dependents? Does literature throw a true or a fictitious light on such questions as these?

To whose advantage is it to sustain such fictitious standard of morals, of justice, of love, of right, of manliness, of honor, of womanly dignity and worth? To whose advantage is it to teach by all the arts of fiction, that contentment with one's lot—whatever the lot may be—is a virtue? Yet it is one of the fictions of fiction that the contented man or woman is the admirable person. All progress proves the contrary. To whose advantage is it to insist that virtue is always rewarded—vice punished? We know it is not true. Is it not bad enough to have been virtuous and still have failed, without having also the stigma which this failure implies under such a code? We all know that vicious success is common—that often they are partners for life and that in death they are not divided, that the wicked flourish like a green bay-tree—why blink it? Why add suspicion to failure and misfortune, and gloss success with the added glory that it is necessarily the result of virtue? To those who know how false the theory is, it is a bad lesson—to those who do not know it, it is a disarment against imposition.

Some of the fictions of fiction have their droll side in their native contradictions of each other. These examples occur to me:

Women are timid and secretive. They can't keep a secret. They are the custodians of virtue. They are the "frailer" sex. "Frailty thy name is woman."

"With the passionate purity of woman."

"Abstract justice is an attribute of the masculine mind."

"Man's inhumanity to man makes countless thousands mourn." No class was ever able to be just to—to do justly by another class—hence the need of popular representation."

"Women are harder upon women than men are."

"He disgraced his honored name by actually marrying his paramour."

"We are happy if we are good."

"He was one of the best and therefore one of the saddest of men."

But why multiply examples. Many—and different ones—will occur to every thinking mind, while illustrations of the particular fictions of fiction, which have gone farthest to cripple you or your neighbor, will present themselves without more suggestions.

CORRESPONDENCE.

THE AFRICAN IN AMERICA.

To the Editor of *The Open Court* :—

THE letter of Prof. Cope in reply to my criticism of his views on this subject, calls for a rejoinder from me which I will give as briefly as possible.

As to the first point, I cannot admit that the superstitions of the negroes are more irrational and debasing than those of the white race. Of course, I do not intend to say that any portion of the present inhabitants of Europe are as debased as *some* negroes. What I maintain is that the superstitions of both races have had a common origin, and that if the white race is less affected by them than the dark race, it is because the latter has been subjected continuously for many ages to influences which have prevented it from rising out of them. Some months ago I heard a discussion on the superstitions of the negroes in the Southern States, and there was nothing said but what could be paralleled in the witchcraft of Europe. I was strongly reminded by the description given of a long cord with pieces of string or stuff fastened to it, used for purposes of witchcraft, of a so-called *witch's ladder* exhibited by Dr. E. B. Tylor, a few years ago, before the British Association for the Advancement of Science. I am glad to hear that the great majority of Americans think universal suffrage a mistake. When a test of fitness for the franchise is required then the illiterate of both races will be excluded. Prof. Cope would seem, however, from his reference to "material progress," to desire a *property* test. Whether there is any chance of such a restriction being placed on the right to the franchise he is better able to judge than I am.

Secondly; as to the probable development of the negro in this country as compared with his progress in Africa. It is true that a great variety of climate is to be found on the African continent, and its southern extremity may, as compared with other regions, be called temperate. Nevertheless, although the fact that the negro or negroid race of Africa almost universally shows the influence of climate, this is not the most important condition on which the want of improvement of that race has depended. Prof. Cope states that Southern Africa has not produced a civilized people, and that these temperate regions are the home of the lowest races of man, the Bosjesman and the Hottentot. The degraded character of these peoples I admit, but in my opinion they are the victims of circumstances, and really belong to the same stock as much more civilized peoples in Northern Africa. They have been crushed by the intruding Bantu race, which comprises all the other African peoples south of the equator. An admirable account of the manners, customs and superstitions of these South African tribes, by the Rev. J. Macdonald, appeared in the *Journal of the Anthropological Institute of Great Britain* for last February. Mr. Macdonald explains why progress is impossible among such a race. He says, "their greatest dread is to offend their ancestors, and the only way to avoid this is to do everything according to traditional custom. . . . And when to this we add that any man who is mentally ahead of his fellows speedily earns the reputation of a wizard, for whom there is neither pity nor compassion, and whose end is generally a violent death, we can understand

how matters have continued unchanged for thousands of years." And yet the South African Bantus are not deficient in intelligence. They have an admirable judicial system, which has been in operation from time immemorial, with a well regulated tribal government. They have all the intellectual qualities which are necessary for civilization, but traditional custom and fear of witchcraft have kept them from advancing. My argument is that, apart from these unfavorable conditions, there is nothing in the physical structure of the African—a term which must not be restricted to peoples of a low negroid type—to prevent him becoming civilized. Those conditions can be removed, however, only by a powerful external agency, and it is perhaps the greatest of all the misfortunes of the African peoples, that they have remained for thousands of years without being brought into contact with a superior race, except in the relation of slaves. An exception must be made of those who have been converted by Mohammedan missionaries. Mohammedanism is a great civilizing agent, if only because it requires its converts to be sufficiently educated to be able to read the Koran in Arabic. In like manner, the transportation of the negroes to this country would have been a source of great benefit to them if they had received at first a similar education, as Christians. It is to the long persistence of unfavorable conditions, not climatic merely but of all that constitute the "environment," we must also ascribe the hopelessly degraded state of the Australian aborigines. My view as to structural characteristics is that we have no right to infer from them alone, that a people, negro or otherwise, is incapable of intellectual culture. This applies even to the natives of Australia, who have never been tested with this end in view on scientific principles. Whether we are justified in affirming that the negro is inferior in character "to the neolithic and most of the paleolithic extinct races of prehistoric Europe," I much question; in any case, we ought to judge of his capabilities by what he has done, under conditions different from those to which he had been subjected for so vast a period in his African home. Too little attention is paid, so far as I can judge, to the actual progress made by the negro in this country since his emancipation. At the "Negro Conference" held not long ago, however, at Lake Mohonk, it was stated in the resolutions adopted, that "carefully gathered statistics bear witness to the value and the reliability of negro labor, skilled and unskilled. No other race ever made such industrial progress in twenty-five years. . . . A most encouraging number of negroes, as a race entirely landless twenty-five years ago, are now landowners. . . . There is a steady material and mental improvement in the race, and the growing tendency to self-help on their part gives hope and uplift to all the work done for them and with them." This result is ascribed to the influence of education, and it is to the continuance and the further development of this agency we must look for the improvement in the race. What has already been done appears to me very encouraging, and justifies the belief that in the course of a few generations the mass of the negro population will be well fitted to exercise the political franchise, at least as well fitted as a large proportion of the white population, and the same rule should be applied to both races.

The question of morality is too wide to be discussed ideologically, but certainly I do not accept the opinion, that the Negro, as known here, is entirely wanting in morality, or that the "virtue" of their women always characterized races which have attained to a state of civilization. That the African has less power of self-control than the American Indian is true, but that is just the element which a proper system of moral education will provide.

Thirdly; as to hybridization, my remarks applied exclusively to admixture of the White and Negro races. In Mexico and Central and South America Europeans have mingled with the American peoples, but it by no means follows that they will do so in the United States with Africans. There has been, indeed, little inter-

mixture even with the native population. It is true that in the West Indies there has been a mingling of European and Negro blood. To what extent this has been carried I do not know, but probably not nearly so far as is generally supposed. Moreover, English anthropologists, properly or not, are of opinion that the dark European peoples take more kindly to the negro than do the lighter Europeans. This, if true, is another reason why the fear of hybridization in this country may be dismissed. The fact that colored women are more plentiful than white women in the streets of certain cities after dark, has no practical bearing on the question. Prostitutes are not usually very particular, nor do they generally bear children. Moreover, what is done in the dark will not be done in the light. In my opinion, circumstances, apart from any race prejudice, will prevent any great intermingling in that manner between the Negro and white races in this country, therefore I do not attach any importance to the question of the deterioration of the latter. But what would be the actual effect of such intermingling, cannot be known until white women are induced to take colored husbands, as well as white men colored wives. I doubt whether the experiment will ever be tried on a large scale, but if it were, and its results were found to be undesirable it could be forbidden by law, as it is already in some states of the Union.

Fourthly: as to the Negro vote, which appears to me to be the only point of great importance. Prof. Cope says the ignorant vote is everywhere "not definitely assignable to any particular party, except in a large degree to that party which chooses to adopt the most unworthy methods." This is true all the world over, and it ought to be provided against by the State. At one time bribery and intimidation were extremely prevalent at elections in England, but they are now almost unknown, owing to the careful use of the ballot system. As to the appeal to the Negro's superstitions, the only remedy is education, and if all the energy expended over the discussion of the race problem were devoted towards that end, there would be little fear of the result of the Negro vote, even if it did hold the balance of power in some States. There are sure to be evils of various kinds until the effects of the great evil of slavery have disappeared, but they will disappear all the quicker if the colored people are left to work out their own destiny, under the influence of the educational advantages which it is the duty of their white fellow-countrymen to provide for them. This is especially applicable to the South, where, if the race question were allowed to subside, matters would right themselves in time, as the Hon. Wm. C. P. Breckinridge states they have done in the city of Lexington, and the Negro would vote the same ticket as his white neighbour. So long, however, as the race prejudice continues—a prejudice due to the old Aryan pride of color, and which is probably much stronger in the North than in the South—there will always be the disposition to find reasons for treating the Negro as inferior to the white race. This is not to say that many men who hold this opinion have not arrived at it dispassionately, and Prof. Cope is quite justified in asserting that his views are based on a cool consideration of the question. It is full of difficulties, but, as an outsider, I think they should be dealt with at home where they have arisen, and not be got rid of by a forcible ejection of the unfortunate who was brought here against his will, but having become acclimatized, now wishes to stay to enjoy the advantages given him by his new-born freedom.

C. STANILAND WAKE.

THE NEGRO QUESTION.

To the Editor of *The Open Court* :—

I look at the Negro question with unbiassed vision—we must cast aside all political and sectional influences and test—the Negro—with the same calmness and deliberation that the skilled physician does his patient in order to diagnose his malady. *The*

Open Court of June 26th, 1890, contains an article by the anthropologist, C. Staniland Wake, in reply to one written by Prof. E. D. Cope on the race question. Prof. Cope strikes the key note to the whole subject when he states, the Negro is controlled by superstitions and is almost entirely lacking in morality. This statement of Prof. Cope, is but another way of stating that the Negro brain is only developed in its emotional qualities: *the intellectual elements proper: reason, judgment, and will power being almost—wanting.* If we look at the lowest classes of the white race, certainly in the temperate zone, we never find the emotional side of his nature so completely controlling him as in the Negro. Prof. Cope clearly shows the difference between the two races in this particular. "In the Negro superstition is an organic quality of the Mind, while in the White man it comes from his surrounding and can be entirely overcome in a generation by removing him to a more intellectual atmosphere." Now let us, for a moment, look at the other statement of Prof. Cope, it is that the Negro is entirely wanting in morality. We will consider just one side of the subject, viz., the want of virtue of Negro women. Can any one point me to a single race whose women have not been virtuous that has gone beyond semi-barbarism. I certainly know of none. This is in itself enough to show that the Negro cannot become even a second rate American citizen, the lewdness of the Negro woman is a blight that no government can remove from her race. We naturally ask is this difference of race between the Negro and the White man altogether due to climatic influences as is suggested by Mr. Wake. If savages were only found in cold or hot climates we might be led to think so, but when we consider that the American Indian has lived for hundreds of years in the finest climate—and is still an emotional savage, we acknowledge this view of the subject is wrong.

I believe as we better understand the action of the brain it will be found that it is indeed true, as stated by Prof. Cope, that the difference in race is an organic one of the brain, which cannot be removed. Now when we add to this organic defect in the Negro the effect of climate upon him we must, indeed, feel that it is a hopeless task to make him a valuable citizen. For 5000 years the Negro lived in a hot climate, and this alone is so powerful, says Mr. Wake, that the original white man of Australia could not stand it and sunk to a low savagery. When the Leper changes his spots and the Negro his skin then may we hope that the Negro mind will become intelligent. Only the highly wrought political sensitiveness of a new republic could have, for a moment, placed the Negro socially and politically equal to the White man.

PHILIP S. ROY.

OLD CHIVALRY.

To the Editor of *The Open Court* :—

At the occasion of the last meeting of the Knights of Pythias at Milwaukee, Mr. M. M. Trumbull, under the head "Current Topics," in *The Open Court* (July 24th, '90), has given us a paper which contains many good things, but which grossly misrepresents old chivalry.

Bossuet has said: "The human cloth is always short on some side." An advance of civilization in one direction is too often a loss in another. Our boasted modern industrial and mercantile civilization has, unfortunately, lost too much of the old altruistic chivalrous ideal. The worship of the latter high ideal has been abandoned for that of cunning Mercury, the god of merchants and robbers—for that of the golden calf and Mr. Trumbull must ignore completely the history of old chivalry, or be very confident that his readers ignore it, when he abuses the old Knights and refuses to them the "sense," the "character," the "conscience," and "respectability," he concedes to the modern "Knights." He is pleased to say that the "American Knight earns his own living by honest industry, as the old Knight never did."

This is completely erroneous. The American Knight works much less and is much better paid than the old Knight, who was not paid at all. The American aristocracy is a monied aristocracy, an aristocracy of middle men, of speculators, who stand between the producer and the consumer, between the soil and the *bona fide* purchaser and seller, to fleece them of nearly all the benefit of their honest work. The real "industry," or work, is done only by the working classes, not by traders and speculators.

The old Knight worked personally, by day and by night, amid exposure, hunger, and every kind of discomfort and danger. He worked for the good, not of himself, but of others, and with no other pay than the satisfaction of his conscience. He kept himself in constant and hard training, so that his constitution and muscles, as well as his heart, could stand an amount of hardship that very few of our best modern men could stand to-day.

In its true, original character, as evidenced by the history of Knight Bayard and many others, chivalry is heroic altruism and self-denial, it is bravery and generosity itself. Chivalry is the grandest, the purest of all the human institutions that have ever flourished on earth. The Knighthood of Europe has saved civilization from ruin, from Turkish conquest and barbarism. It is chivalry alone that has rendered possible our boasted modern civilization.

Mr. Trumbull adds: "To work for a living in the days of chivalry was not a knighly thing to do. The man who did it was a 'churl,' a 'villein,' and 'no true Knight.' It is just because they were not mercenary, worked for no compensation, not even their 'board,' or 'living,' but only for the satisfaction of their conscience—often in poverty and destitution—that the old Knights were really chivalric—true Knights—and thoroughly deserved the adjective 'respectable,' in spite of Mr. Trumbull, who seems to possess a very peculiar standard of respectability.

No, it is not knighly at all to act selfishly, as do our modern business men. Adam Smith says: "Selfishness is and must be the only spring of trade." Then, as selfishness is the very opposite of chivalry, it is evidently essentially *unknighly* to trade, or to do anything that is of a selfish nature, that has a selfish object in view, however legal or honest it may be. Now as to the words "churl" and "villein"; in old times they possessed no offensive and insulting signification. *Vilanus, le paysan*, the peasant, was merely the man of the *pay*, i. e., the countryman. There was less distance then between the Knight and the peasant, than there is now between well-to-do city merchants and poor farmers or laborers. Nevertheless, the bourgeois or the peasant, who pursued gain and wealth who worked for their own personal benefit, could not naturally be at the same time admitted to Knighthood, which is, as we have seen, a very different kind of "business."

In this century, the knighting in Europe of bankers, as the Rothschilds, for having grasped millions of the public wealth, and even of an English brewer for having sold enough kegs of beer to become a big millionaire, has been a public scandal and ridicule, sacrilegiously done by royalty, in direct opposition and tradition to the true character of chivalry.

As to the Knighth of Pythias, it seems that when any democratic brotherhood seeks, in the midst of our hard, selfish, and greedy modern civilization, to revive a spark of the old chivalric altruism and devotion, nothing is more natural and legitimate, than that they should enroll themselves into a new "Knighthood" and be called "Knights." Let them only harmonize their souls and lives to these noble titles, and always remember that *noblesse oblige*, that the higher the dignity the more monstrous and ridiculous it becomes when it is undeserved.

An illusion, too common here, is to believe that other countries are more "aristocratic," in the bad sense of the word, than ours is. Of course the American constitution is the best, the most

democratic and liberal. But, under that magnificent constitution, what is to-day the real character of American civilization? Is it democratic?

The only difference that I can see between us and Europe is that, in Europe, there are several aristocracies, equilibrating and correcting one another, while here there is only one aristocracy, unbalanced, uncorrected, selfish, tyrannical, and all-powerful—the moneyed aristocracy.

In Europe the old or "blue-blooded" aristocracy has completely (except in a few countries) lost the very last remnant of their old privileges. Now, in the midst of general and perfect equality, they are satisfied to remain the model of social refinement and high-toned simplicity. The aristocracy of finance has never been able to win in Europe that popular admiration given to big purses here. The most influential aristocracy is the intellectual aristocracy, that of literateurs, savants, and artists. It is they who move the world; *mens agitat mollem*; they lead civilization. The peers of anybody, even if born in the poorest classes, they are welcomed and lionized in these very *salons* where business men, even the Rothschilds with all their millions, would not be admitted.

The great boast of honestly earning one's living, so often heard from the men who neither work nor produce, but who live and grow wealthy only by speculating on other people's work, brings us naturally to inquire why the poor man who robs a train is so despised and put in the penitentiary, when, at the same time, the "magnate" who steals the railroad is admired and considered as "respectable." As for me I prefer the knight of the road to the knight of the market.

Let us look at men and things impartially, honestly. Let us remember that a democratic constitution and a great nation can slip into the grasp of the worst of all the aristocracies; and that, on the other hand, in the midst of the darkest ages, there shone the purest of human institutions—chivalry, which is synonymous with bravery, generosity, and honor.

The old knighly honor and virtues wantonly denied by Mr. Trumbull, have always been, however, in old and in modern times, extolled by the greatest historians and poets.

F. DE GISSAC.

THE EVOLUTION OF A LIFE.

To the Editor of *The Open Court*.—

In your last issue your reviewer of my late work, "The Evolution of a Life," makes a few slight mistakes that I should be pleased to see corrected.

The father of the author of the work reviewed never came to this country, as the reviewer says; but he lived and died in England. Again, it was not ten years, but about twelve years that I worked as an Episcopal minister.

I greatly prize such an appreciative review from *The Open Court*. The reviewer, however, thinks that I have stated certain matters with too much "detail." This is a criticism the reverse of my old professor's, who, on my writing on the blackboard a problem in the Calculus, used to say: "Mr. Bray, you jump too many bridges; I cannot follow you." The problem was worked in my head faster than I could place it on the board; the result was that I was apt to write down conclusions or effects, without stating the many minor parts of the problem. In writing the book I wished to set forth every important cause that effected changes in my faith,—to do this in simplicity and truth, and in such a way that "the wayfaring man, though a fool, might not err therein." To do this, sometimes requires a little "detail."

The book is not a life, nor is it largely biographical. It is no more a biography than a picture-frame is the picture. It is a statement of church dogmas, creeds, and clerical life, and a phi-

losophical inquiry into their nature and character, the whole being told in the form of a story, every part of which is true, having real and living examples or subjects.

Nor was it simply a college education that the author of that work obtained. He has found such education to be hardly a foundation for a true scholar. Rather did he continue his studies until he had received six degrees, every one being the result of examinations.

The changes in my life have been very costly and painful to me; but I could do no other. It is bad enough to be "damned" by the church; it is much worse to be "damned" by one's self. There are men in the pulpits, many of whom I have known, and know to-day, who have so little faith in the fires of hell they preach, that they can complacently live careless not only of future damnation, but even of the damnation of the present. This, try as I would, I could not do. I was full of care, *laden with anxiety*.

"The Evolution of a Life" is a record of soul-activity, and for such activity it gives the most conclusive reasons; and what is more than all, it is most truthfully written. As I said to my bishop, "It is written in the blood of my heart."

Thanking *The Open Court* for its kind words, and asking its indulgence for these few corrections,

I am respectfully,

CHICAGO, Aug. 7, 1890. HENRY TRURO BRAY.

BOOK REVIEWS.

CERCLE CHROMATIQUE. By Charles Henry. Présentant tous les Compléments et Toutes les Harmonies de Couleurs, avec une Introduction sur la Théorie générale du Contraste, du Rythme et de la Mesure. Paris: 1888. Ch. Verdin.

M. Charles Henry, the learned "*Bibliothécaire à la Sorbonne*," and the author of numerous well-known works relating to mathematics, art, and aesthetics has recently startled the scientific world by his ingenious *mathematical theory of expression*.

The theory of music refers consonances and dissonances, which are facts of pleasure and of pain, to relations between numbers of vibrations. Light, color, form, pressure, temperature, according to quantity, are at stated periods also either pleasant or painful, and all of them cause very different physiological modifications. For these different sensations do there not also exist laws, that are analogous to those of auditive sensation? And are not all these laws particular instances of a more general law of living mechanics? But science thus far has not furnished to the painter the same technical advantages as to the musician. The artist is frequently in need of a complementary color, namely, the colored light, that mixed with another produces the effect of white. He is constantly called upon to solve problems of illuminating power, of harmonies, of the mixture of colored lights and pigments. The painter thus must be able to determine the *normal* laws of complements and of mixtures. Yet, how is he expected to determine these normal laws? The idea is not altogether new, but the problem is not directly approachable by way of experiment. M. Charles Henry attempts to solve this difficult problem by an indirect method, that will, it is claimed, transform contemporary science.

In his "*Chromatic Circle*" he does not at all try to find out what are those mysterious phenomena that are called sensations, or what are those unknown phenomena that are termed the molecular world or molecular actions, but, —through generalizing the facts that have been firmly established by contemporary psychology, concerning the expression of every sensation and of every idea, —he wishes to study psychic facts in the motor reactions that correspond to them. M. Charles Henry puts the aesthetic problem in a new form. Since our sensations and ideas offer no basis of calculation, he seeks to connect them with phenomena that are

susceptible of *measurement*. Through psychological observation it is a thoroughly established fact, that no *sensation or idea* is possible without movement. If the movements of the organ are obstructed, the sensation corresponding to the cognition of such movements is likewise obstructed. The psychic functions are the virtual movements of the living being. By giving a schematic outline of the modes of action of our physical organism, the author shows, that the living being is only able to describe cycles (circles described in a single direction) of a definite radius, expressing its diverse excitations by varying directions, virtual or real, of its force; the sense of these directions, above or below, to the left or to the right, mark the pleasant or disagreeable nature of these excitations. *Direction*, accordingly, is the representative element, that is common to all sensation. When the directions, more or less, differ at the maximum or the minimum, successively or simultaneously, their function is that of *contrast*.

When they differ at certain angles, realizable continuously by our physical organism, whose movements are ideally assimilable to those described by the compass, there is *rythm*.

When they belong to cycles whose radius is too large to be described continuously, and when the number of unities of measurement of these directions, considered as the denominator of fractions of a cycle, are realizable continuously, there is *mesure*.

Having stated these general processes of reaction in the living being, the author treats scientifically the problem of color, and constructs his chromatic circle. He determines the three fundamental prismatic colors, and the four fundamental pigments; he lays down the principles of a rational polychromy, and finally presents the different formulas, to which are subject the harmonies of the prismatic colors, and of the pigments. But the author, at the same time, finds it necessary, to prove the absolute generality of the principles of living dynamics, and, from visual sensation, he therefore extends their application to auditive sensation; the aesthetic problem thus becomes identified with the problem of the mechanism of those excitations that by physiologists are called *dynamogenic* or *inhibitory* excitations. From these points of view the author reduces our natural mechanism to a scheme of symbolic mathematics, or reduces our natural mechanism to a mathematical being, endowed with four appendices—one superior and one inferior to the right, and one superior and one inferior to the left—which by changes of direction on cycles express all variations of excitation, and of corresponding physiological work. To the conditions of possibility or impossibility of continuous movements of expression subjectively correspond sensations of pleasure or of pain, and, objectively, increases or diminutions of the physiological work (muscular effort, pulsations, respiratory movements) discharges of electricity or of heat. By direct deductions from a fundamental fact of organization, the author thus has been able to determine the *normal*, hitherto inaccessible to observation and to experiment, and to show the correlation between three orders of phenomena: physical phenomena, electricity, and heat; mechanical phenomena, virtual motions of the living being, continuous and interrupted; and subjective phenomena, pleasure and pain.

But, for a detailed description of all these delicate theories, and of the instruments, that represent their practical realization, we must refer the reader to M. Charles Henry's own book, and to an elaborate article on contrast, rhythm and measure, published in the *Revue Philosophique*, October, 1889. 1020.

NOTES.

A reply, by Gen. M. M. Trumbull, to the remarks upon "*Chivalry*," published by Mr. F. de Gissac, in this number, will appear in our next issue.

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THE INEBRIETY OF PLANTS AND ANIMALS.*

BY CARUS STERNE.

[CONCLUDED.]

SIMILAR conclusions to those from the equal action of ether and chloroform upon different living beings, can be drawn from the stimulating effects which alcohol exerts upon very different organisms. It would be instructive to investigate, whether plants, that have been sprinkled with very weak brandy, or put into the fumes of wine, exhibit an increased vitality and excitability toward external influences. The old Greeks and Romans believed something of the sort, and sprinkled the plane trees, consecrated to their genius, with wine, to the great vexation of Pliny, who complained, that now they were beginning to teach drunkenness even to plants. It was particularly believed, that for the purpose of imparting strength occasional sprinkling with wine was beneficial to diseased or injured plane trees, as shown in the Greek epigram of Philippos:

"Scorns of the South have torn me, the full-leaved, blossoming plane-tree,
Under thunder and hail, out of the ground with my roots.
But I was bathed in wine and life is restored to my branches.
Sweet is the blood of the grape, sweeter than rain upon earth.
Bacchus has bled me with strength, his drink has given new vigor.
Others by wine are laid low, me it hath raised from the dead."

I must here remind my readers, who readily perhaps believe in stunned sensitive plants, but not at all in intoxicated plants,—of the effects of *camphor* upon plants. Camphor is a vegetal substance, much like ether, which taken inwardly acts upon man with the stimulating and animating effect of Alcohol. Orfila, in his "Toxicology," tells about persons poisoned by camphor, who felt in a state of intoxication, as if they had thrown off all the weight of the body, and were floating ether-like in the air. At the same time they displayed an irresistible impulse to jump over tables and chairs. It has been proved by an old experiment that water mixed with granulated camphor exerts the same violent irritation upon plants of every description. According to the successively verified experiments of Barton, Vogel, and Raab, it cannot be doubted, that camphor water produces the same animating effect upon broken or half-faded and moribund branches or flowers, as musk or a draught of strong wine upon old and invalid persons. Already Barton compared both effects with each other, but in both cases, of course,

the rejuvenation is only a transient one. Even the germinal force of old seeds, according to the comparative experiments of Vogel and of Raab, are wonderfully revived by camphor water.

It is impossible to explain the uniform action of such heterogeneous substances otherwise than through a similarity in the nature of the irritable elements, i. e., in their organic basis. If two things are always equally excited by a third, in such case they must be similar to each other.

That brandy acts in the same manner upon animals as upon men, is long known from numerous experiments. But it is remarkable that different insects, particularly beetles, are said to be immoderately fond of fermented fluids, which nature itself has prepared for them. The English botanist, James Petiver (died 1718), in his works on natural history, tells us that a South-American beetle, closely related to our own nasiconous beetle, but considerably larger—the *Oryctes Hercules*, well-known to collectors—in swarms of thirty to forty will assail the Toddy-tree; by aid of its snout-horn it will saw through the bark, and thereupon will feast upon the abundantly flowing juice, and during their state of inebriation, the intoxicated ones, in Guinea called Toddy-flies, can be easily caught in large numbers.

It might be imagined, that here is only a question of the powerful attraction of the sweet juice itself, the rather so, when we recall to mind Swammerdam's story to the effect, that a stag-beetle, to which he held forth some sugar on the point of a knife-blade, is said to have rushed towards the same like a dog, but the observations, made by Prof. F. Ludwig in Greiz for three years of certain beetles and insects that are enticed by the juices of trees, the results of which studies he has published in the periodical *Hedwigia*, and also communicated at last year's Congress of Naturalists in Berlin,—do not leave the smallest doubt, that the eye-witness, from whose observation Petiver's information had been obtained, in reality had observed drunken beetles. Ludwig, in fact, remarked on the bark of a large number of oak-trees, as also of several other trees, (birches, aspens, maples, etc.,) the appearance of a foam, smelling like beer, the manifest indication of an alcoholic fermentation of the juice of the tree, around which there had

*Translated from the German by J. P. V.

assembled a motley crowd of boon-companions of insects, belonging to different classes, particularly stag-beetles, hornets, gold flies (*Musca Cæsar*), and of butterflies, such as the peacock butterfly, admiral, and morios. By dint of a more careful investigation it was found, that the alcoholic fermentation within the juice of the tree had been introduced by a filamentous fungus, that spread in all directions, and which, after its discoverer, the botanist Magnus, of Berlin, was named *Endomyces Magnusii*.

This fermenting fungus, which possibly may be closely related to the yeast-fungus, probably had been imported by the insects themselves, because that same summer Ludwig found a large number of the same "beer-brewing" oaks at small distances from each other. It might be assumed, that a few insignificant lesions of the bark, through slits, drill-holes, rupture of branches, etc., with their moderate outflow of juice, formed the first attraction, whereupon the greedy insects brought with them the yeast-fungus from their prior places of carousal. Soon thereupon a *Leuconostoc*-fungus would put in an appearance, increasing the outflow, and through subsequent putrefaction would further contribute to the injury of the trees and to the increase of the lesions, while at the same time these lesions, by further corrosion of the destructive funguses beneath the bark, remain open for years, and continue to distill a mass of foam and slime.

Now, the whole demeanor of the insects carousing at these juice-springs is of such a nature, that it induces us to believe in the intoxication of the animals. This is particularly borne out by an observation that was made by Chop in the year 1863 at Sondershausen, and which he has graphically described in the *Gartenlaube*. On a warm afternoon in the month of June he had been resting beneath an old oak-tree in a garden, and all the while he had noticed above a kind of ticking or gnashing sound, but owing to his shortsightedness he was unable to perceive anything except a peculiar brownish spot on the tree, at an elevation of about four or five metres above the ground. Soon a stag-beetle came tumbling down, and at short intervals in the course of half an hour, there followed eleven more stag-beetles, which for the most part hurriedly attempted to climb again into the tree. Chop thereupon procured a ladder, ascended and found above a large patch of exudation, around which, besides many other insects, were collected twenty-four stag-beetles.

"The beetles were playing," he says, "apparently the most prominent part at this banquet, and despite the sweet fare, they did not seem to be in a particularly good humor; for even the bold hornets which were among the crowd, seemed to dread to approach too close to the big stag-beetles and to their powerful

tongs, and therefore kept within a safe distance. The beetles, on the other hand, had started a free fight among themselves, and at least two thirds of their number were engaged in a struggle. As the females also in their rage were biting with their short powerful tongs, the tug of war could not have been one of jealousy, but rather the less ideal concern about provender. The combats of the males were exceedingly interesting. With their antler-like jaws obliquely shoved one above the other as far as the end, so that they protruded above the neck-shield of the adversary, and their heads closely touching each other, partly in an erect position they fought desperately until one of the combatants became exhausted and tumbled down upon the ground. From time to time some able fighter would seize his adversary round the body, and, with his head raised on high, he would make him kick about in the air, and thereupon plunge him down into the depths below. The gnashing sound was caused by the closing of the jaws. If one of the fallen combatants, ascending from below, again approached, the males again rose, and advanced, for about the length of a head, with open jaws, still eager for the fray. Towards evening the buzzing swarm of beetles slowly retired from the spot."

Ludwig also observed the beetles, at their places of carousal, becoming very combative, and, more correctly, as it seems, he attributes this to the intoxicating drink that they had enjoyed. As fermenting funguses are everywhere found in nature, and furthermore are prepared by the juice-loving insects themselves, it follows that there is no lack of these natural "beer-gardens" and "country inns," and even the fermenting offal from American sugar-refineries and heaps of pressed sugar cane in that country attract in vast numbers a relation of our stag beetle—the *Passalus interruptus*. Some insects can stand a really astonishing quantity of brandy, without perishing from alcoholic poisoning, and one of the most distinguished of the old entomologists, William Kirby (died 1850), the former rector of Barham, tells us, that the observation of this fact in a small lady-bird (*Coccinella 22 punctata*) had been the first inducement to devote himself to the study of insect-life. He had caught a pretty little specimen near the window of his study, and had addressed it as follows: "You are a very pretty fellow, and I should be exceedingly glad to possess an entire collection of such as you."

By way of a preliminary beginning in this sense, he threw the insect into a vessel containing brandy. After it had remained in the same during twenty-four hours, and, while still perfectly motionless, it was laid out to dry in the sun, the insect suddenly revived and flew away. This marvelous capacity of resurrection displayed by the little fellow impressed Kirby so deeply,

that henceforth he became an ardent and ambitious entomologist.

Numerous experiments and observations have further revealed, that brandy produces the same effects on birds and mammals as on man. Several French physicians and physiologists, particularly Magnan and Challand, in Paris, have studied the effect of Alcohol on the dog, and have found that it is essentially the same as on man. By small doses the dog becomes lively, barks at every stranger, and favors his acquaintances with extraordinary demonstrations of affection; but if it has received a larger dose, it will behave awkwardly, becomes unsteady on its legs, looks at its master with dimmed eyes, and finally falls into a deep sleep, from which it awakens in a very sorry plight.

Exceptionally remarkable is the observation, made by both the aforesaid scientists, to the effect, that persistent indulgence in brandy produces in dogs, and probably also in other animals, a mental derangement, perfectly similar to the delirium tremens in men. As everybody knows, among the most striking and most usual symptoms of delirium tremens, are the visionary hallucinations and deceptions of the patients. At first, only at dark, they fancy they see their room filled with rats, mice, and other small animals, which vanish as soon as a candle or a lamp is brought into the room, but in the more acute stages of the malady these apparitions persist even in broad daylight, and the patients fancy themselves beset with devils and hobgoblins. A dog, to which Magnan had daily given alcohol during four weeks, afterwards at times began to bark furiously in the middle of the night, although everything was quiet in the house, or to howl piteously, as if attacked, and only became quiet when a light was brought. Through continued doses of the pernicious beverage the dog later saw its hobgoblins even in broad daylight, would growl and howl without perceptible cause, and, as if terror-stricken, incessantly turning its head to all sides, ran about snapping and biting at the empty air.

As in France it is known from long experience, that hallucinations appear sooner with habitual absinthe-drinkers, than with brandy or wine drinkers. Magnan also began to experiment with absinth upon dogs, and to his astonishment found out that hallucinations appeared at once after the first doses. A dog to which he had given four grams of absinthe, after the first transient attack of inebriation again seemed content and sure on its legs, responding when called by name, and altogether behaving in a perfectly sober manner. "Suddenly, without the slightest provocation, it rears on its hind legs, with an expression of fury, stares with protruding, glistening eyes at a blank point of the naked wall, on which there was nothing that

could have attracted its attention, crouches forward upon its forefeet, as for an attack, leaps to and fro with outstretched neck, and raging and barking, rushes into a furious fight. At the same time it snaps its jaws and makes violent motions, just as if it wished to attack an enemy, shakes its head hither and thither, gnashing with its teeth, as if tearing to pieces an imaginary prey. Thereupon by degrees it grows more quiet, looks a few times into the same direction, still growling, and at last becomes perfectly quiet." Challand also made exactly the same observations with dogs that he had poisoned with absinthe.

From all these observations and experiments it clearly results, that the foundations of the spiritual development in all living beings must be essentially the same, because they react in a marvelously analogous manner upon all kinds of stimulants and narcotics and by persistent application of the same even exhibit symptoms of the same abnormal states. That, from these essentially similar bases, there have been evolved in the course of the organic evolution, beings of very dissimilar spiritual endowments and efficiencies, is a matter of fact that, because perhaps of its very obviousness, has caused us so long to overlook and to misunderstand the aforesaid identity of the original foundations. But if in the present day any one still presumes to deride the idea of so-called Plastidule-souls, he thereby only demonstrates that he does not understand the fundamental problems of psychology, and would do better to refrain from discussing the subject. To the adherents of the doctrine of evolution the fact remains, beyond the shadow of a doubt, that the "beautiful souls," once so generally admired, in reality have been evolved from less sublime stages, even down to animal and vegetal souls, which at first as a rule are only susceptible to nutrititious stimulations.

THE MONISM OF "THE OPEN COURT" CRITICALLY EXAMINED.

BY EDMUND MONTGOMERY.

CHALLENGED by the proprietor of "*The Open Court*" to public combat, I cheerfully enter the lists, ready to pit opinion against opinion in fair and frank contest.

The central mission of *The Open Court* is to spread the monistic world-conception of its founder and editor. And it seeks to accomplish this by establishing its tenets on a rationally valid basis. Its object is not merely to preach to the public the monistic creed, but to demonstrate its truth scientifically. *The Open Court* aspires to disclose the true nature of reality. It positively *knows*, and not merely doubts, or guesses.

Consequently, it abhors Agnosticism in every form, holding that the true nature of the godlike "All" can

be clearly recognized; and that the real mode by which the "soul" attains immortality is distinctly ascertainable. To its philosophical gaze the world is intelligible through and through; the ancient riddle of body and mind turns out to be a mere scholastic puzzle, imposed upon the indivisible oneness of nature by undue abstraction; and there is, in verity, no more mystery about the thinking organism, than about the law-emitting All.

I myself am placed by Mr. Hegeler among Agnostics, not because—like genuine Agnostics—I decline to have an opinion whether or not a supreme Intelligence is governing the world, or whether or not we may look forward to individual immortality;—not because of such religious suspense of judgment, which I hold to be quite unwarranted, am I ranked by Mr. Hegeler among Agnostics; but simply because I find I am incapable of gaining a positive insight into the intimate nature of that which becomes phenomenally known to us in conscious states and material appearances. And—though the principal effort of my thought has ever been to show, that the two disparate modes of existence, known to us under the name of body and mind, have a common origin in one and the same underlying reality—I am denied the right to call myself a Monist, because I believe, that an essential difference of nature obtains between our conscious states and that which awakens them by means of sense-stimulation.

Under these rather stinging reproaches, it will not be deemed unfair if I try to turn the tables upon my accuser, by showing that his thought is in truth far more agnostic and far less monistic than my own.

In ranking Mr. Hegeler as a pantheistic Hylo zoist, I hope I am hitting the mark somewhat more squarely, than when he takes me to be an agnostic Dualist.

His Pantheism consists in the deification of what he calls the "All." I confess I do not in the least understand what, in our scientific era, he and other naturalistic Pantheists have in mind, when they use this ultra collective term to designate a unitary, all-quickening entity, in which we live, and move, and have our being.

Do they mean by the "All" the sundry revolving spheres that compose our solar system, together with the boundless range of other far-off solar systems that constitute the Universe? If so, I do not see how any or all of these circling masses of inorganic stuff can possibly exert any divine influence on human life.

If, however, they do not mean that their "All" is merely a collective name for the entire constellation of existing stars and whatever lies between them, what do they really mean by it?

Surely, they cannot mean by it the only known influence which binds all heavenly bodies together;—

binds them together, however, merely as mechanically ordered systems of moving masses. They cannot seriously believe their world-evolving "All" to be identical with this universally apparent gravitation of matter. Much less can they identify it with the divers forces that become manifest during the special interaction of definite material particles. They cannot mean that their "All" is identical with the heat, electricity, light, and chemical attraction, that spring into existence when matter is acted upon in certain ways. Nor can they mean by it any of the other manifest properties of matter, not its cohesion, its elasticity, its ability to assume under different conditions the solid, the liquid, the gaseous state. Not any or all of these changes of form and transitory displays of the visible world-substratum can possibly reveal the true nature of their godlike "All."

Surveying the field all round, I am altogether at a loss to detect in the perceptible universe and its sense-revealed powers anything divine, anything of moral significance, anything transcending in worth our own human nature. To be sure, the universe is a vast deal bigger than we are; but where is its "soul?" Where the love- and reverence-inspiring characteristics of this frigid, star-studded expanse, that loses itself unfeelingly in indiscernible wastes?

I am inclined to think, that, if Mr. Hegeler were to examine more and more closely the degree of intelligibility attaching to his godlike "All," it would at last grow almost as unknowable as Mr. Spencer's "First Cause." And Mr. Hegeler would discover, that, so far as the ultimate nature of being is concerned, he is as agnostic as the rest of us.

Herbert Spencer's Pantheism is simply an apotheosis of the newly generalized law of the Persistence of Force, and the interconvertibility of its modes. Mr. Hegeler's Pantheism is an apotheosis of the religious emotion which he experiences in contemplating the marvel of being in all its evolving manifestations.

But now let us question a little the hylo-zoistic tendencies of Mr. Hegeler's view. He obviously believes, with most unsophisticated observers, that things really exist as we perceive them; that they actually consist of the tangible stuff we call matter. Transcending actual perception, he believes however, moreover, that such matter is universally alive and endowed with feeling. And here the first flaw in his monistic philosophy makes its appearance. In order to explain our known world, he has recourse to two opposite principles, and therefore to Dualism. He sets about unlocking the world-problem with two different keys; the one fitting the outside, the other the inside of things.

Mr. Hegeler believes, on the one hand, in the mechanical world-conception to which the former, so-

called realistic view gives rise; a conception in which visible matter, energized according to the mechanical laws of motion, is the actual agent through which all physical occurrences are brought about.

But, on the other hand, Mr. Hegeler believes also in the intrinsic animation of all matter, which view is wholly antagonistic to the mechanical conception.

That these two views are incompatible, Mr. Hegeler and *The Open Court* fail to discern. Yet, the mechanical conception is in itself a completely rounded form of Monism. It strives to explain, in strict obedience to its own exclusive laws, everything in the perceptible universe without intervention of any other agency whatsoever. According to it life is not and cannot be an original endowment of matter, but only a result of the peculiar mechanical disposition and movement of aggregated particles.

If material particles were alive, were capable of originating from within any kind of motion, the entire mechanical world-structure would instantly fall into chaotic confusion. For the equivalent transfer of energy, upon which it rigorously depends, would be fatally upset by the influx of new energy spontaneously arising from the inherent vitality of matter. This has been fully understood, these last two hundred years by such leading philosophers as were also scientists.*

Of course, it would be absurd to expect anything like morality from a universe where every occurrence is taking place in strict accordance with mechanical laws. Such an "All" would in no way emit or inspire the ethical rules of conduct, which Mr. Hegeler strives to establish on a naturalistic basis. Every movement, every action of every one of us, would then have been irreversibly predetermined from all eternity, or at least from the time when matter first began to move.

Consistent reasoning should unflinchingly acknowledge, that the mechanical world-conception is absolutely fatalistic: that, consequently, our mental life and its ethical aspirations can then form but a wholly

ineffective by-play to the grouping of material particles, as they are impassively moved by transmitted energy.

Mr. Hegeler gives deserved prominence to the pregnant distinction, so carefully worked out by Aristotle, between "Form" and "Matter." Form is indeed at least as essential as the material entering into the form. And it becomes more and more essential as we ascend the scale of evolution.

Unfortunately, here again, the mechanical view, if consistently adhered to, would debar Mr. Hegeler from making much of "form" into which matter would then fall simply by force of the laws of motion. Form, resulting thus from the mere mechanical disposition of matter, could signify nothing but a causatively and ethically indifferent grouping of material particles.

But, throwing consistency overboard, or resolutely breaking away from the rigid fatalism of the mechanical world-conception, we may feel justified in ascribing much efficient, and even a great deal of moral virtue to the "Form" which matter is seen to assume. I myself am as convinced as Mr. Hegeler, that in the peculiar disposition of that which he would call the "form" of the brain-material, and which I would call its molecular organization; that in this most specific formative nexus the mental acquisitions of our race are established, preserved, and transmitted. This view, which now goes under the name of Lamarckism, was started by Eighteenth Century philosophers. It is essentially distinguished from Darwinism, which in keeping with its leading principle of natural selection is inclined to deny the hereditary transmission of any kind of acquired faculty. In common with Mr. Hegeler, I hold the doctrine of the hereditary transmission of acquired faculties to constitute the pivot of the monistic and humanitarian view of life.*

Mindful, however, of that supreme tenet of modern philosophy, generally known under the name of the "Relativity of Knowledge," I qualify my belief in the organization of acquired mental faculties by saying, that they become organized in what to our perception appears as brain-material. The all-importance of this qualification, which *The Open Court* will straightway pronounce to be agnostic Dualism, shall become apparent as we proceed to examine the illustration by which Mr. Hegeler seeks to explain the manner new impressions get to be organized in the material of the brain.

By using the phonograph as an illustration how the transcendent marvel of the organic preservation and reproduction of mental states is actually wrought,

* "It is tolerably clear that a material particle can never bring about anything by itself, or impart motion of itself to itself." Leibnitz; *Neueux Essais*. "The persistence of energy proves that force as well as matter never newly arises, nor is ever extinguished. The condition of the whole world, even of a human brain, at each instant is the absolute mechanical result of the condition in the previous instant, and the absolute mechanical cause of the condition in the following instant. That in a given instant one or the other of two things may happen is unthinkable. The brain-molecules can only move in the determined way; and if one of them should wander from its place or path without an adequate mechanical cause, it would be as great a wonder, as if Jupiter should break out from its orbit, and throw the planetary system into confusion." "To Monism the world is a Mechanism." Du Bois-Reymond, *The Seven World-Problems*. Haeckel says: "The principal of Monism or scientific Materialism is the same as what Kant terms 'the principle of Mechanism.'" But Haeckel, who advocates a similar hylozoistic atom-besotted Monism as *The Open Court*, fails to add that Kant emphatically declares Hylozoism to be the death of physical science; the death of that same Newtonian science, by means of which he had himself, before Laplace, propounded his cosmical theory of the heavens. Du Bois-Reymond rightly calls Haeckel to account for so preposterous an inconsistency. It is indeed one of the crudest forms of Dualism.

* "I perfectly agree with Mr. Hegeler, that living faith in the unbroken continuity of organic 'form,' and conscious participation in its further development, have to become the positive and central inspiration of the scientific creed. It is this fact of nature which is really the super-individual, realistic basis of the unity of mankind, and of all its social and ethical striving." The present writer in *The Open Court*, No. 2.

Mr. Hegeler evidently overlooks the insuperable difficulties in the way of so facile an explanation. Granting for argument's sake, that spoken words become registered in the substance of the brain in the same way as they become registered on the tin-foil or wax-tablet of a phonograph—what then can it be that furnishes in us the reproducing energy? or rather what is it in us that uses the registered marks, not in automatic reproduction as the illustration would imply, but *selectively* as a type-writer uses the separate letters of his alphabet?

Furthermore, the phonographic reproduction of the sound does not take place until the same form of motion is re-imparted to the air that originally gave rise to the definite impressions registered on the tin-foil. In the vital organism the reproduction of sound does not take place until appropriate movements of the vocal chords have imparted to the air the same form of motion that originally struck the ear. What then is it, that gives effective impulsion and appropriate form to the movements of the vocal chords? Unlike the tin-foil, it is not the brain-substance that itself emits the sound which reproduces the ordered set of air-vibrations, whose registered marks it has preserved. The same hyper-mechanical faculty which selects for reproduction among all registered marks those intended for a special purpose, this same selective faculty imparts evidently also the corresponding impulses to the vocal chords. The process transcends altogether mechanical interpretation.

This, however, is by no means the most essential obstruction the mechanical explanation of the preservation and reproduction of mentally experienced impressions has to encounter. The part which mental apprehension or conscious realization is itself playing in the process, turns out to be, on close examination, wholly subversive of the mechanical view. It sounds quite plausible, that the form of vibratory motion which strikes the ear, is as such conveyed to the brain-substance, and as such registered therein. But—leaving out of sight,—on the one hand, the fact that "vibratory motion" is merely a visual or eye-wrought representation of the "formed energy" that strikes the ear; and, on the other hand, the fact that we not only feel, but also understand the meaning of the sense-conveyed impressions; leaving these momentous considerations out of sight, how comes the specifically formed brain-matter at all to *feel* its own peculiar mode of vibration? This strange connection somehow subsisting between brain-motion and feeling, has been pronounced the most incomprehensible fact in nature, not only by philosophers, but by a number of prominent scientists.

Mr. Hegeler, of course, will say, that it is an original endowment of matter, when thus formed, to feel

the activity of such form in a way corresponding to it; just as it is an original endowment of matter to form definite chemical compounds, which then re-act in ways of their own. There is, however, in verity nothing in the connection and interaction of one material substance with another, of one chemical compound with another, which in the remotest degree corresponds to the connection and apparent interaction of brain-motion and brain-feeling.

In the former instance everything occurs as part of one and the same physical nexus. In the latter instance there is, outwardly perceptible, likewise an unbroken physical nexus, complete in itself. But, inwardly, there is felt another nexus of the entirely different mental or conscious order.

Now it has seemed to the great thinkers of the Seventeenth Century, to Descartes, Geulinx, Spinoza, Malebranche, Locke, Leibnitz, etc.,* and to most thinkers ever since, that this twofold order of occurrences—the outer physical order and the inner mental order—constitute a radical dualism in nature, the explanation of which has in fact formed and is still forming the central problem of modern philosophy.

Monism, properly, philosophically, scientifically understood, does not consist in the bare dogmatic assertion, that the two disparate orders—"ordo rerum et ordo idearum" as Spinoza calls them—constitute one and the same "All" or "All-existence." It consists in the eminently difficult task of showing how the two parallel-running sets of incommensurable phenomena, do actually form part of a unitary world. And this task it is, that has exercised to the utmost the thinking powers of generations of truth-seeking philosophers.

The problem has thus been laboriously cast into a historic mould or "form," which one has no right wilfully to neglect. As regards *The Open Court*, it cannot be said, that it has as yet attempted seriously to grapple with it. Its Monism consists, in a vague idea of a soulful unitary cosmos, which it calls the "All," and under which it conceives a supremely powerful, all-comprising existent, governing by dint of its own intrinsic laws on equal terms physical occurrences, as well as human life and its ethical aspirations. This pantheistic conception is—as I shall still further show—put forward by *The Open Court* without adequate

* "Body, as far as we can conceive, being able only to strike and affect body; and motion, according to the utmost reach of our ideas, being able to produce nothing but motion, so that when we allow it to produce pleasure or pain, or the idea of color or sound, we are fain to quit our reason, go beyond our ideas, and attribute it wholly to the good pleasure of our maker." LOCKE.

"We are constrained to confess that perception and whatever depends upon it, are inexplicable upon mechanical principles; that is by reference to forms and movements. If we could imagine a machine the operation of which would manufacture thoughts, feelings, and perceptions, and could think of it as enlarged in all its proportions, so that we could go into it as into a mill, even then we would find in it nothing but particles jostling each other and never anything by which perception could be explained."—LEIBNITZ.

rational justification, and is fitfully defended by a high-sounding complex of philosophical ambiguities and inconsistencies.

This verdict may appear unduly severe, when pronounced against an enterprise, generously undertaken out of purely humanitarian motives. But the duty now devolving upon the present writer, is to weigh philosophical arguments "in the coldest, driest light of reason." I am aware, that sincere devotion to truth, and a zealous desire to instruct and elevate his fellow-men, has induced Mr. Hegeler to found *The Open Court* as an organ for the propagation of what he understands by "Monism." But it is a fact, that most opposite world-conceptions allow themselves to be monistically interpreted. And it is certain also, that, from whatever premises you start on doctrinal excursions, you are sure at last to land, even against all reason, in the region of their extremest logical implications.

So it has been with Roman Catholicism, which—on the strength of its premises—declares itself to be the promulgator of infallible truth, and the exclusive vehicle of salvation. So with Calvinism, which feels itself irresistibly driven to doom to eternal perdition to great non-elect majority of mankind. And so with all other creeds. You set out to defend some kind of preconceived "faith"; for instance, a belief in the existence of an evolution-governing, godlike "All," and—against your strongest convictions on the other side—you will find yourself inextricably involved in pure Fatalism, the deadliest of all creeds.

The faithful application of the scientific method is the only safeguard against the dangerous sway of preconceived ideas. A scientific conception has to be formed on the strength of well-verified, nowhere conflicting facts of nature. It is unscientific to adopt a faith on sentimental grounds, and then try to support it by whatever isolated arguments or facts may seem to favor it.

The philosophical interpretation of nature requires still more circumspection. Mr. Hegeler does not profess to have studied the history of philosophy. He has not taken pains to enter the esoteric precincts of modern thought. He has, consequently, not undergone the operation Schopenhauer calls the removing of the cataracts which blind humanity in general to the fundamental truth, that the outspread world we know is first of all our own sense-awakened individual perception; and, therefore, that what lies beyond, the "All" included, can be only a more or less rational inference therefrom.

Since Berkeley, this constraining truth has gained more and more power over thinkers, and is holding at present most of our teachers of philosophy spell-bound in the charmed circle of pure Idealism. It has even irresistibly drawn into its magic vortex eminent scien-

tists, such as Huxley and Wundt, trained all through life in the exact observation and mechanical interpretation of physical occurrences. The way to genuine Monism lies inevitably through this idealistic entrance. No admission elsewhere to the world-secret.

Unlike Mr. Hegeler, the Editor of *The Open Court* has been far too much exposed to the influence of German schools of thought not to have lost the naive, pre-philosophical confidence in the palpable consistency of things. He has tasted of the fruit of the tree of knowledge, and forfeited the blessed state of unsophisticated innocence which rests contented with the idea that our perception of things are the things themselves. His pantheistic Monism "is sickled o'er with the pale cast of thought." Despite all apparent positiveness, he keeps wavering among incompatible positions, loth to decide whether mind is or is not the outcome of a material "All" or cosmos; or whether material existences are or are not rather inferential reflections from cognized perceptions; or whether both matter and mind are or are not coeval modes of existence of some kind of All-Being.

That this is the actual state of mind of the Editor, regarding the philosophic foundation of his monistic faith, I shall try to show in a second article.

IS MONISM UNTENABLE?

1. OCCASION OF THE CRITICISM.

THE present number of *The Open Court* contains a formidable attack by Dr. Edmund Montgomery upon the position of *The Open Court*. It is written in consequence of a correspondence between Dr. Montgomery and Mr. Hegeler.

Dr. Montgomery wrote in a letter of Jan. 6th, 1890:

"During my pleasant visit at La Salle I believed that I had 'fundamentally the same conception of the world as you; for so long as I have pursued serious thinking, there has seemed to me 'no doubt that mind and matter has a monistic root, that the 'whole present universe must be conceived as a unitary product 'of homogeneous co-operating forces; and I never hesitated in 'contradiction to Agnostics to deny definitely the existence of a 'separate deity and personal continuance after death.' [Translated from the German.]

Mr. Hegeler answered Dr. Montgomery's letter of Jan. 6th, 1890, on Feb. 3rd, 1890, as follows:

"Mind and matter, according to our view, have no monistic 'root. These words designate Abstractions of Reality. In the 'one concept (mind) there is nothing of what is meant by the 'other (matter). It is this that is abstraction. In my article 'The Soul' (No. 15 of *The Open Court*, footnote page 393), I 'have illustrated this standpoint in a practical example.' [Translated from the German.]

Mr. Hegeler incidentally made a remark concerning Dr. Montgomery's views. Mr. Hegeler merely said: "they appear to me agnostic and dualistic." Mr. Hegeler cannot find in his correspondence any passage

in which Dr. Montgomery is *directly* called a Dualist and an Agnostic,* and it seems that "these rather stinging reproaches," as Dr. Montgomery calls them, were not made on any other occasion.

Mr. Hegeler requested Dr. Montgomery to send his criticisms of the views of *The Open Court* in short articles which might be separately answered. Dr. Montgomery sent two manuscripts, the first of which we have the pleasure to present in this number.

II. DIFFICULTY OF A REPLY.

It must be regretted that Dr. Montgomery does not take occasion to quote literally the propositions he attacks. There is not one quotation in the whole article. He describes Mr. Hegeler's and *The Open Court's* position in his own, viz., in Dr. Montgomery's, words. These words very often happen to have other meanings and thus many attacks of the learned Doctor, astonishing in their overwhelming force and scholastic conclusiveness, are made against positions which were never maintained.

It is difficult to deal with critics who refuse to attack their adversary in his own position, who paint an enemy as they think he is, and then triumph over their having demolished him *in effigie*.

In spite of this difficulty we shall try to adapt ourselves to the circumstances, and proceed to give battle to Dr. Montgomery as well as we can.

Dr. Montgomery claims to be a monist. Yet his conception of monism is merely a romantic hope of finding the monistic root of matter and mind. Dr. Montgomery gives us from his standpoint some well meant advice concerning "the genuine monistic problem," which, he says, "consists in showing, that mental phenomena—that which we call mind—and physical phenomena—that which we call matter—are in truth modes of appearance or phenomenal manifestations of one and the same underlying reality." If we followed Dr. Montgomery's advice, we should indeed be entangled in those inconsistencies with which he erroneously charges *The Open Court*.

Our reply, accordingly, cannot properly be called a defense. A defense is only needed in those points where *The Open Court's* position is attacked. Our reply must mainly consist of points of information; we shall show, that Dr. Montgomery's view of monism is untenable and that his criticisms become irrelevant as soon as he places himself upon the standpoint of modern psychology, which is the standpoint of *The Open Court*.

I. I. POETRY AND PHILOSOPHY.

A distinct feature of Dr. Montgomery's criticism is the poetical style in which he writes. Poetry is always fascinating, especially when it carries with it

philosophical thought. The poetic expressions of Dr. Montgomery, however, often overshoot the mark. When he speaks of the "law-emitting All", or the "world-evolving All," we are too much reminded of the *βῦθος* of the old Gnostics and their "emanation theories". Our objection to such phrases lies in the fact that the laws of the All are parts of the All. The changes that take place in the All are not emanations; they are not "emitted" from the All. That would be dualistic.

Dr. Montgomery speaks of

.... the time
When matter first began to move.

This sounds like a verse of some cosmogony. But the idea expressed in this rhythmic sentence hardly deserves a place in a philosophical discussion.

IV. FORM NOT INDIFFERENT.

Dr. Montgomery says:

"Form resulting thus from the mere mechanical disposition of matter could signify nothing but a causatively and ethically indifferent grouping of material particles."

So long as Dr. Montgomery thinks that a difference of form is indifferent causatively as well as ethically, he will never comprehend the position of *The Open Court*. What is more, he will never understand any problem, least of all any philosophical problem. Plato is right when he says: *μηδὲς ἀγεωμέτρητος εἰδὶτω*! i. e., "Those who have no idea of mathematics, i. e. the science of form, shall not enter into the empire of philosophy."

V. HYLOZOISM.

Almost all the difficulties that prevent Dr. Montgomery from arriving at a unitary conception of facts, especially of those facts that concern the relation between body and mind, have been discussed in the article "Feeling and Motion." See Nos. 153 and 154 of *The Open Court*. That article will satisfactorily explain how all motions can be in rigid conformity to mechanical laws, even those motions that are accompanied with feelings. It will further explain why feelings, perceptions, thoughts, and ideal aspirations can not, as Dr. Montgomery proposes, be conceived as mere by-play, indifferent and accidental. In short the article propounds a tenable hylozoism; it shows what is meant by the phrase that nature is alive.

Life is not, as Dr. Montgomery explains, "an originating from within any kind of motion;" it cannot produce any "influx of new energy spontaneously arising." Hylozoism in the sense used by Dr. Montgomery, "is indeed one of the crudest forms of dualism." We have however no objection to hylozoism, provided that Dr. Montgomery's peculiar views of life are not mixed up with the term.

* Why Dr. Montgomery's view must appear agnostic and dualistic is explained below p. 2468, at the end of the first column.

VI. LAMARCKISM OR DARWINISM.

It appears that in the famous struggle between the two parties of evolutionists, which of late have been called Lamarckians and Darwinians, Dr. Montgomery sides with the latter. He says:

"In common with Mr. Hegeler, I hold the doctrine of the hereditary transmission of acquired faculties to constitute the pivot of the monistic and humanitarian view of life."

Professor Weismann, the leader of the so called Lamarckian party, objects to the doctrine of the hereditary transmission of acquired faculties. *The Open Court* has published an essay by Professor Weismann, embodying his views in a popular form; but *The Open Court* has never entered into the controversy whether or not there is a direct hereditary transmission of acquired faculties. Dr. Montgomery's agreement, accordingly, is no less illusory than many of his disagreements. To say the least, it is very bold to consider such a dubitable proposition "the pivot of the monistic and humanitarian view of life."

VII. PANTHEISM.

The position of *The Open Court* has never, either by its founder or by its editor, been called pantheistic. On the contrary the word pantheism has been rejected* in order to guard against just such errors as those with which Dr. Montgomery now charges *The Open Court*. Nevertheless I would not deny that there is much truth in the conception which is generally called "Pantheism". All depends upon what we understand by the term. "This pantheistic conception", Dr. Montgomery says, "is fitfully defended by a high-sounding complex of philosophical ambiguities and inconsistencies." Since Dr. Montgomery rests satisfied with the mere assertion, and so long as the existence of these "ambiguities and inconsistencies" are not proved by quotations, I see no way to defend *The Open Court* against these charges.

VIII. THE FOUNDATION OF MONISM.

Dr. Montgomery says:

Monism, properly, philosophically, scientifically understood, does not consist in the bare dogmatic assertion that the two disparate orders—"ordo rerum et ordo idearum," as Spinoza calls them—constitute one and the same "All" or "All-existence."

Dr. Montgomery's monism, it would appear, is different from that of *The Open Court*, as will be seen later on. But even if Dr. Montgomery's view of the subject is different, there is no reason for characterizing the monism of *The Open Court* as a "bare assertion." The foundation of monism has been repeatedly described. We quote from *Fundamental Problems* the following passage:

"It will easily be understood that the oneness of nature (the regularity which pervades the universe and which can be formulated in natural laws—die Gesetzmässigkeit der Natur), must be considered as the ground of, or ultimate *raison d'être* for, the prin-

ciple of oneness which is found in our mind. Our cognition,* with the help of sensation, only mirrors in our consciousness the phenomena of nature in their regularity; so that knowledge in its entirety must become a systematic representation of the world in our brain.

"Monism is different from the other philosophical views in so far as it is not so much a finished system, as a plan for a system. It admits of constant realization and further perfection, in all the many branches of knowledge. The plan, however, can be sketched in outline, and we need have no fear of its being overthrown by unexpected discoveries. Other systems, as a rule, set out with objective principles to which their upholders try to adjust the facts of reality. Some hypothesis is formed and facts are interpreted by this hypothesis. Monism, however, is a subjective principle, a rule informing us how to unify knowledge out of our experiences, a plan how to proceed in building our conception of world and life from facts. We need fear no collision between our pet theories and facts, for it is a matter of principle that we have to take our stand on facts. Monism in this sense, i. e., the formal principle of unity, is the only true philosophy, and we can repeat of monism the same words that Kant said of his Criticism: 'The danger is not that of being refuted but merely that of being misunderstood.'"

IX. SENTIMENTALITY AND SENTIMENT.

Dr. Montgomery says:

"It is unscientific to adopt a faith on sentimental grounds."

If "sentimentality" means an absence of criticism *The Open Court* has never taken its stand upon "sentimental grounds," as Dr. Montgomery imagines. Our logic may have been wrong, and if it is, Dr. Montgomery is welcome to point it out. But where is there an instance in *The Open Court* of taking sentimental grounds?

It is true that the founder of *The Open Court* acted under the influence of a sentiment, of an emotional impulse, when founding *The Open Court*. He owns that he has a faith in monism. But his faith in monism is not built upon mere enthusiasm, it is built upon critical investigation. The monistic view is the only one which, in his mind, has survived in the struggle of conflicting opinions.

If "sentimentality" means enthusiasm, which at the same time does not shun criticism, what can be better than sentimentality? It is just that which is needed. Man must have a cause that gives him enthusiasm, that can spur his emotions and warm his heart. Science is an excellent thing, logic and mathematics are a blessing to mankind, but of what avail are all these reasoning powers of man if they be not accompanied with sentiment? It is sentiment that changes science into a religion. Let us not exclude sentiment from the Religion of Science.

X. THE MONISTIC ROOT.

Dr. Montgomery's monism is different from the monism which *The Open Court* upholds. He believes that matter and mind, disparate though they are, may have a monistic root, a common origin in one and the

* Cognition has grown from the interaction of sensations with the memories of former sense-impressions.

* Idea of God, p. 17.

same underlying reality. He lays much stress upon the disparity of body and mind, of things as they are conceived and things in themselves. He says of the founder of *The Open Court*:

"He does not profess to have studied the history of philosophy. He has not taken pains to enter the esoteric precincts of modern thought. He has consequently not undergone the operation Schopenhauer calls the removing of the cataract which blinds humanity in general."

Dr. Montgomery, to be sure, did study the history of philosophy; but whether for that reason he "has entered the precincts of modern thought," remains still doubtful; for the history of philosophy, it appears, has taught him no other lesson than that the first duty of a philosopher is to set out in search of a magic root, which is supposed to be the sesame of a monistic philosophy. There have been many gallant knights of thought—their adventures are recorded in the history of philosophy—who in their fantastic longing for the magic root that should explain the mystery of matter and mind, wasted their lives in a fight with chimeras. These chimeras are the products of their own imagination; they are the errors in which these knights errant became entangled, and most of these mediæval heroes of thought—it is sad to think of it—were slain and devoured by the children of their own prolific imagination.

Dr. Montgomery appears in *The Open Court* like a wraith of one of these slain heroes, and refuses to recognize as his peer any one who renounces the sacred search for the monistic root of body and mind. Dr. Montgomery kindly informs us what we ought to do in order to become truly monistic; he says:

"The principle effort of my thought has ever been to show that the two disparate modes of existence known to us under the name of body and mind, have a common origin in one and the same underlying reality."

On the basis of this statement, Dr. Montgomery claims the title of a monist. This monism is one of visionary hope, and his attitude remains for the time a state of suspense. The Doctor's statement, accordingly, must give the impression of *Dualism*, since body and mind are supposed to be "disparate" modes of existence which may be "separate also," for aught we know; and at the same time it must give the impression of *Agnosticism*, because the search after their "supposed common origin" appears to be a great, but nevertheless a hopeless, undertaking. Agnosticism is that philosophy which still believes in an "underlying reality," but has prudently given up the search for it as hopeless.

The Open Court has tried "to remove the cataract" that still blinds a great number of people, but the operation has not been successful with Dr. Montgomery.

We become entangled in inextricable difficulties,

unless reality is considered as one indivisible whole. There are sense-impressions and perceptions; there are motions, there are feelings, and there are thoughts. Certain groups of sense-impressions that are related, unite in one concept; and such a group of sense-impressions receives a name. The name thus represents a group of facts which in their totality are called a body. In this way conceptions are formed. There are, however, conceptions of different kinds. When thinking of movements, we omit thinking of feelings; in other words we make an abstraction. When thinking of mental states we omit thinking of bodies; we again make an abstraction. In reality they do not exist separately; but for certain practical purposes it is, for the sake of clearness, necessary to separate them in thought. Body is different from mind, or as Dr. Montgomery says, they are "disparate." They are as much so, for instance, as black and fluid are. But they are not disparate in the sense that their co-existence is any mystery. There may be black fluids that are black as well as fluid in all their parts.

With the assistance of some learned show we might make a mighty deep mystery of a black fluid. How can two things, we might argue, be in the same place at once? It is impossible, and yet it is maintained that in every part of this substance there is blackness and fluidity at the same time. Is it now the duty of the physicist to show in stilted phrases, "that the two disparate modes of existence, known to us under the name of blackness and fluidity, have a common origin in one and the same underlying reality"?

Mystifications are very easily produced. We need only misunderstand the purport of words in order to produce confusion. And on the other hand we must understand the purport of words and the method by which we have arrived at abstract expressions, in order to preserve clearness of mind.* This is especially so with the terms body and mind. Certain features of a living being are called mind and other features are called body. So long as a living being has been considered as a composition of a living mind with a material body, their interconnection was supposed to be an insolvable problem. Mind was considered phenomenal and the body was considered phenomenal; behind both, it was maintained, lies the reality of which we know nothing. Thus the facts of experience were declared to be phenomenal illusions and a mere sham. Reality was sought behind the facts of experience, it was supposed to be anywhere except in that which is most properly called reality.

IX. THE UNBRIDGED GAP.

Modern thought has overcome the conception of a reality behind the facts of experience. It ceases to be

* See *Fundamental Problems*, pp. 146-148 and 148-153.

astonished at a disparity of two concepts, mind and matter, which results from a difference of abstraction.

The root of many errors, it appears, must be sought in language. Man designates a group of experiences by a word, and is thus led to imagine that it is something by itself. Yet it is not. The group of experiences designated by this or that word, is a part of the whole world and, closely considered, cannot be without it. Its existence is bound up in the whole reality from which it has been abstracted.

Dr. Montgomery has not as yet freed himself from the error of Idealism which, since Descartes pronounced his famous *cogito ergo sum*, has troubled many philosophers. The world, being split up into mind and matter, into subject and object, into feeling and motion, philosophy artificially created a gap which without inconsistency cannot be bridged over.

But before you speak of this gap that rends the world in twain, please show me some thing that is mind and nothing but mind, or subject and nothing but subject, or feeling and nothing but feeling. Feeling is a state that accompanies certain motions of living brain-structure; there is no mind that is not joined to matter, and there is no subject without an object. The subject exists because of the object, and *vice versa*. Perceptions, sensations, thoughts, and all states of consciousness are an interaction between object and subject. The data of experience, or perceptions, do not prove the reality of the subject, but the reality of a relation between one part of the world called subject, the action of which is accompanied with states of consciousness, and the rest of the world, called objects, which by various forms of impressions produce the various states of consciousness. There is neither a subject in the sense of the old school, nor an object in the sense of a thing in itself. There is no underlying soul-being, no ego behind or below man's thinking. The subject can only be a collective term for certain conscious states in feeling substance.

The data of experience are on the one hand not quite so simple as Dr. Montgomery imagines; they do not consist in mere subjectivity; they are a complicated state of interaction between subject and object. And on the other hand again, the whole state of things is not so complicated as Dr. Montgomery imagines. The unfathomable gap between subject and object before which he halts, because he believes that he cannot pass over it, does not exist. It is an illusion of his philosophical standpoint.

Reality is. It is undivided and indivisible. And parts of reality are symbolized in words. In contemplating the meaning of these words and noticing that they are sometimes disparate, i. e., so different that one cannot be compared with the other because they belong to different categories, the philosopher won-

ders how these "disparate things" fit unto each other.

Is that not just like the Polynesian of whom Kant speaks? He wondered not why so much froth came out of the champagne bottle, but how the froth had been put in. Instead of investigating how the soul has been formed, how the "subject," viz., the *ego* in Descartes's *cogito*, has grown, how from a complex of sense impressions ideas have developed, Dr. Montgomery takes the different ideas he has, and tries to put them together again, so as to form, as he says, "a unitary product (!) of homogeneous co-operating forces." He succeeds as little as Kant's Polynesian could succeed in the attempt to replace the froth in the bottle.

In order to re-combine two such disparate things as "body" and "mind," Dr. Montgomery has recourse to "a common origin," "a monistic root," or an "underlying reality." The underlying reality is the cement with which he tries to unite the disparate pieces of his broken world. But it does not hold together. This kind of Monism is untenable.

[Space does not permit us to answer in this number all the critical remarks of Dr. Montgomery. Several most important points will be discussed in our next number, among which may be mentioned such subjects as: Morality and The All; Morality and Fatalism; The Mechanical Explanation and the Origin of Feeling; and The Hyper-mechanical.] P. C.

OLD CHIVALRY.

GEN. TRUMBULL'S REPLY TO MR. DE GISSAC.

MR. DE GISSAC'S criticism on my recent article concerning "Knights" is interesting, and much of it I approve; but unfortunately that part of it which I admire, is outside the original subject-matter. I shall therefore confine my reply to his defense of "Old Chivalry," and his disapproval of what I actually said. I shall have no controversy with him about what I did not say.

Judged by the aristocratic prefix to his name, Mr. De Gissac is probably the scion of some high-caste family in France. For this he deserves neither praise nor blame. In these days a man's moral and mental stature must be established by the actual measurement of him, as we find his physical dimensions. A diminutive candidate for the office of policeman, cannot make himself eligible by claiming that several of his ancestors were more than six feet high. No doubt Mr. De Gissac lives up to the ideal of old chivalry, which is "greatly to his credit"; but being a civilized man, he is careful to avoid the habits of the "Chevaliers," which is to his credit also. He complains that the "worship of that high ideal has been abandoned for that of cunning Mercury, the God of merchants and robbers."

To handcuff trade and robbery together was a solecism worthy the age of chivalry. The contradictory characters of merchant and robber were falsely applied to Mercury by the chivalry of Mount Olympus. The charge that Mercury was a thief was a "campaign lie," invented by rival deities, jealous of him, not only because of his great accomplishments, but also because he had been appointed by Jupiter to the office of Herald-General of the Gods, a lucrative situation for which there were many candidates. It is impossible that the God of literature, music, astronomy,

arithmetic, and eloquence could have been a thief; and there was genuine chivalry in Mercury when he punished Ixion for slandering Juno. I do not think the Greeks considered Mercury a thief, because their statues of him reveal to us a refined, intelligent, and honest face, such as never yet appeared in the "rogues' gallery." To throw dishonor upon trade, mechanics, agriculture, and everything useful, was always the policy and practice of Chivalry.

Mr. De Gissac says that the old Knight "worked for the good of others, for no other pay than the satisfaction of his conscience." This is a mistake; the old Knight never worked. He fought, killed, ravaged and plundered, but he never worked. His wages was booty and the promise of loot. For instance, once upon a time, a lot of people from Mr. De Gissac's country went over to my country on a chivalrous expedition. His countrymen conquered my countrymen in a great battle near Hastings, and the victorious chief gave to the Knights of his army all the lands of the conquered as pay for "chivalry." Not only did those Knights despoil the people of their lands, cattle, and goods, but also of domestic treasures dearer than either cattle or lands. Some of them hold a firm grip on those lands to this day. I myself have seen them, Talbot, Mowbray, De Vere, St. Maur, Courtenay, Neville, Greville, De Burgh, Fitz-Gerald, Devereux, Montague, Grosvenor, Molyneux, De Montmorency, Percy, and a hundred more of them sitting in the House of Lords, making laws for the English whom they have held in subjection for more than eight hundred years. This proves the tenacity, as well as the rapacity of Knighthood. It may be true, as Mr. De Gissac says, that the Knights toughened their muscles by exercise and drill, but their mental constitutions were neglected; they could neither read nor write; and their moral faculties were undeveloped; these were without any discipline worthy of the name. No doubt there were some educated Knights like Bayard, who exemplified the ideal of chivalry, but they glittered like pearl buttons on a black coat, a very small ingredient of the garment.

Mr. De Gissac says that "the Knighthood of Europe has saved civilization from ruin, from Turkish conquest, and barbarism." This is an inversion of cause and consequence; our civilization, such as it is, was not possible until after the extinction of Chivalry. Chivalry hindered the march of literature, science, ethics, philosophy, industry, and liberty. The feudal system out of which we have slowly groped our way and of which Chivalry formed a part, was itself the darkness and barbarism of the dark ages. As for the comparison between the civilization of the East and that of the West during the age of chivalry, it is not greatly to the advantage of the West. As a test of the rival powers let us compare Saladin and Richard Cœur de Lion, the "Achilles of Chivalry." In all the graces that ornament a gentleman, Saladin was the superior of Richard. Sir Walter Scott, in his picturesque novel *The Talisman*, has in his own fascinating way described the magnanimous courtesies displayed by each towards the other, but it is the unanimous opinion of the commentators that his description is false to history. It is agreed by the historians that while Saladin was generous, refined, enlightened, and humane enough to display the virtues attributed to him by the novelist, Richard was not. Although he has been canonized as the very incarnation of chivalry, Richard was destitute of every chivalrous quality except the battle-bravery of a soldier, which is a stimulated courage after all.

* * *

I fear that Mr. De Gissac is correct when he says that I seem to possess a "peculiar standard of respectability." My standard is personal conduct, and its influence for good upon mankind. I believe that any man who is willing to work by hand or brain to create as much as he consumes is respectable in the moral meaning of the word. I know I am "peculiar" when I hold that work,

either in the present or the past, enough to compensate society for all that he has used, makes a man respectable, and I am not sure that anything else does.

If Adam Smith ever said that "selfishness is the only spring of trade," and used the word selfishness in its modern meaning, he said what is not true. If he used it in the sense of self-support he described a beneficent moral agency. Next to production itself, trade is the most necessary element of material prosperity. The merchant was always held mean in chivalry, because he was as criminally useful as the farmer, the tanner, or the tailor.

The etymology of "churl," "vilein," "paysan," is of no consequence; the important fact is that the person thus described was of a lower caste, having no rights which the high caste "Knights" were bound to respect; and Mr. De Gissac falls into serious error when he says that "there was less distance between the Knight and the Peasant than there is now between well-to-do city merchants and poor farmers or laborers." There is no political difference now between merchants and farmers, and no social difference recognized by law. This was not so in the olden time, when the laborer was actually condemned by law to social and political inferiority. The aspiration of the working classes for liberty united all the chivalrous orders in an effort to crush out even the hope of better things. Chivalry was oppression drilled, armed, and organized. Chivalry was a trust formed by the aristocracy, to keep the laboring classes in perpetual degradation. A man writing a thousand years hence about the "Chivalry" of the southern states before the war, should he imitate the etymological argument of Mr. De Gissac, would say something like this: "It is a mistake to suppose that the word 'negro,' meant a slave, or a person of low caste; the negro was merely a black man, from the latin, niger, black." The truth is that the word "Negro" described not only a black man, but also his political and social condition; as the words "churl," "vilein," and "paysan" described the political and social status of the peasant or "countryman."

Of course Mr. De Gissac does not wish to be taken at his word when he says that he prefers "the Knight of the Road to the Knight of the Market"; and it would be unchivalrous in me to take advantage of such an unlucky confession. Mr. De Gissac may not wish to be taken literally, yet the preference he expressed is literally "Chivalry," not the ideal, but the fact. For hundreds of years, highwaymen in Europe were known as "Knights of the Road," and although highway robbery is an ignominious Knighthood, it was more honored by the "chevaliers" than shop-keeping. Although chivalry as a military system disappeared in the 16th century, its pernicious genius lived on. It was the inspiration of idleness, waste, licentiousness, caste privilege, and every form of inequality and wrong. Its evil spirit animated the French nobility, and stimulated that illustrious caste to perform those deeds of lust and cruelty which at last provoked the revolution. By that convulsion the French aristocracy, stigmatized by Lamartine as "the dregs of the feudal system," was swept like so much vermin out of France; and thereby chivalry in Europe received its mortal wound.

Mr. De Gissac lectures me as if I had compared the millionaire merchants of our own day with the Knights of the middle ages, to the disadvantage of the knights; but I did not. I do not admire the modern code of "business," and I have neither praises nor apologies for it, but I will say this, that there is not a greedy corporation in America to-day, that in all the qualities of genuine chivalry will not compare favorably with any order of Knighthood that ever existed. However, I spoke not of the "monied aristocracy," but of the orders calling themselves Knights of Pythias, Knights Templar and Knights of Labor. These are all composed of working men, and they condescend ingloriously when they assume the titles, and lower themselves to the ignobility of "Knights."

The only excuse for them is that they have adopted the name in its ideal meaning, without knowing its actual character.

Chivalry as a sentiment was humane, as a fact it was barbarian; the standard of chivalry was morally high but the living practice of the knights lowered it. Every step gained by civilization during the past five hundred years, was a victory over chivalry. Gentleness, refinement, and purity could obtain only an ideal recognition during the age of chivalry. It was the epoch of dissolute manners. "Never," says Guizot, "have the relations between man and women been more licentious." The boasted "gallantry" of Knighthood was very seldom chaste. During the high noon of chivalry the honor of handsome women fled for safety into the nunneries, the only sanctuaries where the libertine gallantry of knighthood dared not follow. Chivalry was tyranny, and its purpose was to arm and discipline the aristocracy for the oppression of the poor. Democracy and political justice could not grow until Chivalry decayed. Chivalry was an imposture dazzling the multitude by pageantry and pomp. Even to this day it plays tricks on the imaginations of romantic youth, by a glittering jargon of heraldry and poetry: helmets, plumes, gauntlets, gonfalons, golden spurs, crosshilted swords, and a hundred other word symbols of a barbarism which covered Europe with a pall of darkness, and shut out the very sun of righteousness for nearly a thousand years.

That the darkness of chivalry was illumined by flashes of light is true. Individual instances of unselfish bravery and devotion redeemed in some degree the bad character of Knighthood; but these were exceptions, not examples. Even the theoretical principles of chivalry, gave to the knights a false idea of duty by limiting its operation. Knights were not required to waste magnanimity and justice on common people; these were for the exclusive use of one another.

Edward the Black Prince, the flower of chivalry, spared the soldiers he took prisoners at Limoges, and was very courteous to his knightly enemies, but as amends for that, he slew the non-combatants with chivalrous ferocity, the unarmed and innocent inhabitants, men, women and children. Once when France and England were at war, and the English had invaded France, a revolt of the French peasantry having begun in the neighborhood of the hostile French and English armies, the knights of both sides actually joined their forces to suppress it, which they did, after killing seven thousand men. Even Bayard, was so desirous to preserve his knighthood from contamination, that at Padua, being ordered to storm the trenches with the common infantry on foot, he refused to obey, on the ground that the life of a knight was too noble to be risked in battle with the common soldiers of the peasant class. There is more genuine chivalry to day, more courage, generosity, and justice among tinkers and tailors, merchants and sailors, than there ever was among professional Knights in the most romantic and chivalrous days.

AWAY WITH OGRES AND FAIRIES!

BY H. E. ROOD.

THE day of mythical romance has passed. The time has come to put aside for ever such tales as that of "Blue Beard," of "Aladdin" and of the "Sleeping Beauty." From the dawn of history legends of fairies and ogres have delighted men, women, and children. But as civilization advances fewer persons of mature years care for these myths. And now the question arises why should we fill the minds of children with fabulous exploits of false heroes? Boys and girls soon outgrow their belief in "Jack, the Giant Killer," and at fifteen smile to think that they ever were so silly as to consider the story of Cinderella to be "truly true." It may be urged that the banishment of fairy tales would destroy the most innocent imaginative pleasure afforded to human beings.

But this is not true; and it seems absolutely sinful to waste childhood thus. At four years of age the child's mind is in a peculiarly receptive condition. He is beginning to understand his little world, and is constantly asking questions. And at this period he is amused by listening to stories of beings that never did and never could exist. Therefore, fairy tales are an absolute injury to the moral nature of children. It is said that as a race we are becoming too practical; that we are losing our love for the fanciful. This is true, and it is to be regretted. Still it is foolish to endeavor to preserve our love for beautiful flights of fancy by dreaming over false beings. In literature as in everything else all is worthless except that which is true to nature. And as society progresses this fact is more widely recognized.

However, we can properly preserve and enlarge our waning love for the imaginative. What transformation could be more wonderful than that from the ugly caterpillar to the exquisite butterfly? Where can one find a more powerful and heroic giant than the ant? What horrible ogre could provide a more attractive trap than the spider weaves? Whose fairy kingdom is ruled better than that of the Queen bee?

Here is a field for both authors and readers; and, although somewhat tilled, it is practically illimitable. Would not children be delighted with a charming tale tracing the development of the horse which ages ago was no larger than a fox? Would they not be interested in the still more simple story of the acorn which dropped to the ground a thousand miles away, and grew to be the massive oak of which their bedstead is a part? And if tales of a different sort are desired there exist many charming little novels of child life and plenty of room for many more. Yes, the day of falsehood in literature, even for babies, is declining.

It is never too late to commence forming a taste for good reading in a child, provided he is old enough to be interested in any reading whatever; and the literature that boys and girls devour from the time they are ten or twelve years old does much to determine their character and after life. Boys who in childhood are told about giants, and ogres, and witches, and ghosts, grow to love the wild impossible tales of cannibals and Indian fighters, of pirates and bandits, which give them an entirely false idea of life and its objects. But besides cultivating a taste for good reading, the abolishment of fairy tales and the substitution of stories of real life would give children a fund of information invaluable in itself. They would learn to take an interest in botany, in zoology in geology, and as the years went on this interest and information would continue to be developed. Anxious mothers, no doubt, will thoughtlessly cry out that the child's mind will be injured by this process of overloading it with facts and statistics. But such is not the idea. The plan is merely to substitute real for false information. Children think over fairy tales, of witches and goblins and elves, and talk about them, and dream about them: Would it not be better for your boy to think of the beautiful butterfly which he can see, to be told of its work, and its life, and the good it does in this world? Would you not rather have your little girl dream about the humming-bird and the honey-suckles which it visits? Children ordinarily are very busy little philosophers; and if they do not think about that which is true, they will think about freaks of the imagination which have been told them by ignorant nurses or careless mothers.

Another thing which strikes one forcibly in connection with this train of thought is the "Santa Claus" delusion. It is a very pretty fancy, no doubt, to teach your babies that on Christmas eve good old Kris Krinkle comes around with a pack on his back and with a sleigh drawn by rein-deers, and brings them the presents which they find the next morning in their stockings or hanging on the tree. But all this knowledge has to be "unlearned" a few years later. Why would it not be better in the beginning to tell your children the truth regarding the celebration of Christmas?

BOOK REVIEWS.

PRINCIPES DE PHILOSOPHIE MORALE. By Jules Thomas. Paris: 1890. Felix Alcan.

The author claims that his "Principles of Moral Philosophy" is the only extant work that carefully keeps in view and combines the collective tendencies of the triple scheme of ethical instruction which now obtains in French colleges, and which has since the year 1886 comprised three courses: in the fourth year, a course of "morale pratique" in the sixth year, a course of "Philosophie morale," and finally a course of "Philosophie Scientifique." In the fourth year the students receive a solid instruction in the general moral duties of practical life, but as yet are not initiated in the theories and controversies relating to the principles of ethics. Still, in order that the elementary instruction may not represent a purely practical Catechism, it embraces a kind of casuistry of particular moral duties. But in the sixth year the plan of instruction includes a thorough investigation of the principles of ethics, and a theoretical justification of the precepts contained in the elementary curriculum. In the present work, accordingly, the principles of ethics are set forth like those of a science, yet, notwithstanding this enlarged plan of philosophical and ethical instruction, the work does not exceed the strict limits of a comprehensive text-book in ethics for advanced French students. This enlarged plan, at the same time, allows the author to dilate rather exhaustively upon certain problems of an exceptional ethical interest, as those of *free-will*, of *moral responsibility*, of *personality*, etc., and to undertake a condensed critical study of the historical systems, which in the elementary curriculum had been simply represented by the names of Plato, Kant, or of the Stoics. The work further contains another novel feature. Attached to the end of each chapter, and even inserted into the body of the text, are lengthy extracts, both in prose and poetry, from a large number of ancient and modern writers, by way of "éclaircissements" or elucidations, more or less directly bearing upon the ethical problems at issue.

French text-books in Ethics incontestably present the advantage of great lucidity, and of a concise method of treatment, and yet to English-speaking students they are liable to make the impression of a rather formal technical "drill" in the science of Ethics, being still partial to the cherished scholastic terminology of thesis, antithesis, synthesis, conclusion, upon which a certain stress is still laid. The total and final results of this apparently precise method, may be regarded as at least doubtful, when, as in the present work, the unity of each chapter is broken up into a numerous series of short paragraphs, each inscribed with its own categorical heading, and almost distinctly detaching itself from the main problem. It is, of course, intimately connected therewith but the incessant recurrence of these detached corollaries, needlessly tax the student's memory, and are apt to divide his attention between purely external, conventional forms, and a comprehensive intellectual survey of the ethical problems themselves.

Professor Jules Thomas has divided his work into three principal parts. Part I, in ten chapters, lays down the principles of Ethics; part II, in nine chapters, discusses the principles of moral rights and duties, and the Ethics of society; and the third part sets forth the principles of natural religion. His work bears rather prominently the character of a valuable and comprehensive history of Ethics. His comparisons of ancient and modern systems, such as that of the Stoics and of the ethical system of Kant, faithfully reproduce the judgments of several modern writers. This total lack of individuality pervades the whole work, and stamps it as a French text-book of the Eclectic school.

Great Britain. Fact and Theory Papers. No. I. New York. 1890.

The author says in the preface: "The responsibility for the suppression of the old theories and among them that of Koch are untenable." "Consumption," he says, "is the direct result of the reduction of the breathing surface of the lungs below a certain point in proportion to the remainder of the body, and is solely produced by conditions that tend to reduce the breathing capacity."

The pamphlet consists of 37 pages only, and deserves a careful perusal. It is not written for physicians only, but for all those who wish to prevent the disease, before it be too late.

We have received the first number of the series "Social University Monographs," entitled "The Plan of a Social University," by Morrison I. Swift (C. H. Gallup, Ashtabula, Ohio, price 20 cents.)

The German Frauen-Verein Reform has directed a well-argued petition to the Reichstag to secure for women the privilege of studying medicine, from which they are now excluded. Those interested may obtain copies of the Petition from the president, Frau J. Kettler, Weimar.

NOTES.

We call the attention of our readers to the announcement upon our first page of the publication of two new works: "Three Lectures on the Science of Language," by Prof. Max Müller; and "The Ethical Problem," by Dr. Paul Carus. The lectures of Prof. Max Müller were published in *The Open Court*; but the book also contains an essay, "My Predecessors," that has not yet appeared in America, and which contains a very instructive account of the genesis in the history of philosophy of the idea of the identity of thought and language. Dr. Carus's little work now appears for the first time in print.

The Nationalist, for August, 1890, comments upon our answer to Mr. Wakeman's defense of Nationalism as follows:

"While agreeing that society is an organism of co-operating individuals, the editor of *The Open Court* is inclined to dispute the interdependence of the several units, and fails to see that no one can do anything which is not of common interest."

Here the editor of *The Nationalist* is mistaken concerning the tenets of *The Open Court*. It has been repeated again and again in *The Open Court*, that all our actions, be they good or evil, are of common interest. Not only our actions, may even our words have their effects upon our surroundings and enter into the constituents of the future.*

The Editor of *The Nationalist* continues:

"He utterly mistakes the ideas of Nationalism with regard to competition. As has been often said, nationalists do not wish to abolish competition, but simply to remove it from its present low plane. The competitive brute struggle for the means of physical subsistence is what we would abolish, and this in order that full sway and opportunity may be given to a higher competition, wherein the full manhood of mankind may be evolved, and every person in this world may be unrestrained in the endeavor to attain to the highest and best that is within the compass of his natural capacity."

If Nationalism does not intend to abolish competition, but only seeks to raise it to a higher level, we do not dissent from its position. This is the very same thing that we have maintained from the beginning. Yet this endeavor to make competition more "humane" is quite different from the nationalization of private property.

* See for instance the article "The Communism of Soul Life," in No. 111 of *The Open Court*.

THE SUPPRESSION OF CONSUMPTION, by G. W. Hambleton, M.D., President of the Polytechnic Physical Development Society of

The Open Court.

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RELIGION AND SCIENCE.

BY EDWARD C. HEGELER.

THE aim of *The Open Court* was criticised in a late number of *The Nation* in the following way:

"The profession of *The Open Court* is to make an 'effort to conciliate religion with science.' Is this wise? Is it not an endeavor to reach a fore-determined conclusion? And is not that an anti-scientific, anti-philosophical aim? Does not such a struggle imply a defect of intellectual integrity and tend to undermine the whole moral health? Surely, religion is apt to be compromised by attempts at conciliation. Tell the Czar of all the Russias you will conciliate autocracy with individualism; but do not insult religion by offering to conciliate it with any other impulse or development of human nature whatever. Religion, to be true to itself, should demand the unconditional surrender of free-thinking. Science, true to itself, cannot listen to such a demand for an instant. There may be some possible reconciliation between the religious impulse and the scientific impulse; and no fault can be found with a man for believing himself to be in possession of the solution of the difficulty (except that his reasoning may be inconclusive), or for having faith that such a solution will in time be discovered. But to go about to search out that solution, thereby dragging religion before the tribunal of free thought, and committing philosophy to finding a given proposition true—is this a wise or necessary proceeding? Why should not religion and science seek each a self-development in its own interest, and then if, as they approach completion, they are found to come more and more into accord, will not that be a more satisfactory result than forcibly bending them together now in a way which can only disfigure both? For the present, a religion which believes in itself should not mind what science says; and science is long past caring one fig for the thunder of the theologians."^{*}

Religion is the sphere of those ideas which have been impressed into man to support him in the vicissitudes of life and to comfort him in affliction, but especially in order to regulate his conduct. When we speak of ideas as religious, we also mean thereby that they are our innermost conviction.

Wherever religious ideas are taught, we are confronted with the doctrine that there is a great power that punishes or destroys those who are disobedient to the religious commands.

From our religious instruction has resulted this prominent idea: "Strive and struggle for truth everywhere, but above all in the very highest and most

important field—Religion. Our critic proposes the maxim that we should remain passive with regard to a conciliation of Religion and Science. But a passive state of abeyance, according to our religious view, is irreligious and immoral.

The question is raised by our critic: "Is not the profession of *The Open Court* to conciliate religion with science a predetermined conclusion and therewith an unscientific and unphilosophical aim?" We answer, "It is a religious aim, and also it is not an unscientific aim." It appears that among the religious ideas of our critic there is one which in his soul predominates over all the others, viz., that "Religion to be true to itself should demand an unconditional surrender of freethinking."

We were educated in the so-called Christian Rationalism while our critic apparently belongs to some orthodox school. Religion, accordingly, we were taught, *must be in accord with science*. What are presented to us as conclusions based on science may be in part erroneous, and amongst the religious ideas taught us there may also be erroneous ones. The substance of our religious instruction was that all those ideas taught to us as the Christian religion, which already appeared to the teacher as untenable or might still be found to be erroneous, were unessential.

Those ideas which are in conflict with science we have to drop; yet, at the same time, we must be careful not to drop any more. To drop that part of religion which is not in conflict with science is a mistake almost universally made.

The maxim that errors should be dropped was not always directly pronounced, yet it was impressed upon us by example. Thus, for instance, the Mosaic account of the creation was no longer believed by our teachers, nor were we asked to believe it; we were not instructed to believe that Joshua really made the sun stand still in the valley of Gibeon, nor that Jonah came alive out of the whale; nor were we very seriously asked to believe in a trinity. Irrational faith was never upheld or recommended. But at the same time the conviction was most positively impressed into us that the essence of religion would be found to be true; it will remain. And this proposition is supported by Science.

Mr. Herbert Spencer has pointed out the extreme improbability that there should not be some impor-

^{*} Our critic in a certain sense revokes his criticism, he says: "However, these objections apply mainly to *The Open Court's* profession, scarcely at all to its practice. . . . On the whole, *The Open Court* is marked by sound and enlightened ideas, and the fact that it can by any means find support does honor to Chicago." But if the profession is wrong, how can the practice be correct?

tant truth in ideas which are so old and so widely spread. He says concerning the religious ideas entertained by men since time immemorial :

"We must admit that the convictions entertained by many minds in common are the most likely to have some foundation."

Herein we fully agree with Mr. Spencer, but then Mr. Spencer makes the mistake of concluding that the mysterious or the unknowable is this important truth. He says :

"Religions diametrically opposed in their overt dogmas, are yet perfectly at one in the tacit conviction that the existence of the world with all it contains and all which surrounds it, is a mystery ever pressing for interpretation."

And this mystery, Mr. Spencer declares, is "not a relative, but an absolute mystery."

From the Mysterious or Unknowable no ethics can be deduced, and Mr. Spencer himself has not attempted it. He makes the happiness of mankind the basis of ethics.

In opposition to Mr. Spencer we maintain, that the important truth which is in common to all religions, is this :

All religions teach that there is some power which enforces a certain line of conduct by man.

The savage worships his fetish not because it appears mysterious to him, but because he believes in its power.

The Religion that was taught us has gradually become the Religion of Nature, for we now recognize this power in Nature.* Nature enforces the further evolution of mankind. Those men who do not take part in this further evolution must perish. The highest civilized man will survive. In this we believe to be "in the possession of the solution of the difficulty," as our critic expresses himself; and this solution is very nearly the same as that which Matthew Arnold embodied in the sentence :

"There is a power, not ourselves, that makes for righteousness."

We would alter Matthew Arnold's sentence in this way : There is a power that enforces a certain line of conduct in the domain of life, and it is this line of conduct enforced by that power, which we call righteousness.

A SOCIAL EXPERIMENT.

BY MADAME E. FLEURY ROBINSON.

THOSE interested in social advancement have certainly read of the attempts which have been made from time to time, to realize the many theories tending to improve the condition of mankind.

The Icarian Community, as an example of a life in common, has great illustrative value. Having no special religious creed, the principles of its members

were exalted into a religion, without Christ, the Bible, or Theology. Its government was simply democratic; its system one of pure communism in property. Romantic and interesting, the history of Icaria is also the saddest of all communistic histories, and deserves special study.

Speaking especially of the Amana Inspirationists, a German Community in Iowa, the largest and most prosperous of existing communities, Mr. Albert Shaw, in the preface of a little study entitled "Icaria," says : "Its History is as superior to that of Amana for the student of social science, as the history of Greece is superior to that of China for the study of political science. Yet while other communities have prospered, Icaria has perished; while others became wealthy and lived peaceably, Icaria has struggled with poverty and dissensions."

A social movement tending to the emancipation of society and the establishment of a political democracy, had, in 1848, gained many partisans in France. The events of the first French revolution had taught men the meaning of equal rights.

The doctrines of Voltaire, Rousseau, and other great philosophers, were studied by the *proletaire*, and a generation later the workingman had become a thinking man. The life of M. Etienne Cabet, the founder of the Icarian Community, illustrates the transformation of society at this time. He was born in France at Dijon, capital of the department of Côte-d'Or, in 1788. He was the son of a cooper. His education was begun under a great patriot, the celebrated Jacotot. Later the study of medicine engaged him, but he soon abandoned this for the more congenial study of law, in the practice of which he acquired great reputation in his native city.

When later he transferred his residence to Paris, he made a name as a politician, editor, and historical writer. He took an active part in the revolution of 1830, which, however, disappointed him because it accomplished so little for democratic principles. When the coterie of Thiers, Guizot, and Lafitte had succeeded in placing Louis Philippe on the throne, the men who had hastened the revolution had to be conciliated, and the office of Procureur General in Corsica was given M. Cabet. Soon, however, he was removed, but his countrymen of the Côte-d'Or had already elected him deputy, and he took his seat with the extreme radicals. When his denunciations of the ministry and his outspoken attitude in the chamber of deputies could be no longer tolerated by the government, he was given the choice of two years of imprisonment or five years of exile. He preferred the latter and chose to reside in England. It was there that he determined to experiment in practical communism, not by physical force and revolt against es-

* Mankind is a part of Nature.

tablished institutions, so dreaded by the prosperous classes, but by peaceful industry and happy brotherhood.

He published a book, *Le Voyage en Icarie*, a romance where his new doctrines were expounded in popular style. It is a volume of social philosophy, describing the social arrangement prevailing in a happy country where the government, the arts, and the sciences, and popular welfare have attained perfection. On the title page elaborately arranged were the mottoes: "One for all." "All for one." "To live is the first right." "To work the first duty." The words, Education, Morality, Peace, Justice, summed up M. Cabet's philosophy. The book was received with enthusiasm and was read eagerly. It was clear, practical, and wise. It gave to Christ the highest place as a teacher of the doctrines of human brotherhood, of unselfishness, and of social equality.

He founded a paper, the *Populaire* to disseminate his ideas, and from 1843 to 1847 he printed many controversial pamphlets. His scheme became the topic for all the journalists, and everything relating to his principles was eagerly read. It is said that in 1848, the adherents of the Icarian doctrine numbered 400,000 souls. Among the better classes of artisans in Germany, Spain, Italy, Switzerland, where the French language could be read, the movement attracted attention. To escape persecution and end controversy, and, on the other hand, to satisfy his sanguine friends, he decided to realize his Icaria and vindicate his doctrines. In May, 1847, a proclamation appeared in the *Populaire* signed "Cabet." It promised a terrestrial paradise, peace, and plenty, with the hope of extending these blessings to the world at large. As the result of a conference between M. Cabet and the great English reformer, Robert Owen, it was announced that the choice of the location of Icaria was limited to three localities in the United States, for it had been thought best to emigrate to that country.

Owen, who had already visited the Mexican country, undoubtedly advised him to choose Texas, and in the *Populaire* of January 17th, 1848, an announcement was made that one million of acres in Texas had been secured. The suitability of the country for a great emigration was set forth, and preparations for the settlement of the colony were made at once.

On the morning of the 3d of February on the wharves at Havre, there assembled the advance guard of sixty-nine chosen men. Fifteen hundred were soon to follow. A ceremony, that of making response to a series of questions, some of which had reference to the sincerity of the new disciples, and their willingness to endure privations for the realization of their doctrines, made the scene an impressive one. Thus the

advance guard left Havre, singing a farewell patriotic hymn amid a thousand cries of "Au revoir!"

As the ship bearing the pioneers approached their new home, the booming of cannon was heard, announcing to the people of New Orleans the establishment of the second republic in France. This political change in the mother country at this time was the cause of the division among the future Icarians. Some were in favor of recalling the advance guard, hoping that France might be the theatre for the realization of their theories; others led by M. Cabet maintained that the government was hostile to communistic ideas. The body of Icarians was severed, and instead of the fifteen hundred who were to follow the advance guard, only nineteen came. Meanwhile, the first band had reached the place selected for the settlement, June 1848.

To dwell on the hardships and sickness which dispirited them; the difficulties they encountered in locating their land, would be too sad a story. They resolved to abandon Texas. Five were left to meet the second advance guard to whom this news could not be sent, and who had already landed; the rest retreated to New Orleans, leaving the sick and dying on the way. The leader of the second band a few days after their arrival at Texas wrote a letter to M. Cabet telling him of the suffering endured by the few who had remained, of the death of others, and of their embarrassed circumstances, but M. Cabet published this discouraging news much later, when he laid the blame of the failure on the too great zeal of the pioneers and the events of the Revolution. The causes of the disaster, however, were mismanagement, and lack of money.

The settlement in Texas was finally given up altogether, and the remnant of the first and the second advance guards reached New Orleans. In the meantime four hundred more Icarians had arrived, and M. Cabet landed there in January, 1849. The society never having had a firm financial basis, they soon lacked funds to provide for the newly arrived members. M. Cabet had hoped that the great ideas upon which the society was based, would open many purse strings; but being disappointed in this, a plan was devised to raise the needed capital. All new members should pay six hundred francs or give up all their property; a loan might be effected on the real estate of the future Icaria; a bank could be established, and other ethereal schemes formed, the basis upon which the enthusiastic followers of M. Cabet relied.

We find now our pioneers numbering four hundred and eighty souls, and their leader in New Orleans with a treasury containing eighty-six thousand francs, about thirty five dollars per capita.

The dream of a million acres in Texas had faded

away, enthusiasm was dampened, discussions were frequent, and not always harmonious. The pioneers, some wishing to return to France, others to find a more suitable district than Texas, were living in a few large brick houses in New Orleans. Exploring parties were sent out in search of a new location. Meanwhile two hundred withdrew with one third of the eighty-six thousand francs, the other two hundred and eighty remained with M. Cabet, to locate in a new home, just discovered.

This new home seemed providentially prepared for them. In 1840 Joe. Smith and his followers had built the town of Nauvoo on a magnificent tract of land. Nauvoo was then the largest town in Illinois, numbering fifteen thousand inhabitants.

When Brigham Young organized the migration to Salt Lake, the Mormon property in Nauvoo was left in charge of an agent. This was an excellent opportunity for the Icarians. The houses were good, the land well cultivated and could be rented at a nominal figure. It was a great relief for them, homesick and dispirited as they were, and with but scanty capital. They arranged their social life as well as circumstances permitted, and tried sincerely to carry out the ideas which had brought them so far through sickness, privation, and disappointment.

We find them after a few years of prosperity numbering about five hundred. The Icarians in France hearing the good news, were now anxious to join the prosperous settlement, and many families, well-to-do at home, sold their all, and severed ties of family and friendship to come and begin the new mode of life.

New members came from time to time, and with their means and labor added to the prosperity of the colony. In the space of five years, they had acquired property, they had workshops, farms, a flouring mill, and distillery, and were comfortable. They had a school for the children, boys and girls being taught separately. The children were taken to school as boarders and not allowed to communicate with those outside. The parents could come on Sunday afternoons to stay with their children or to take them home as they might wish.

M. Cabet's intention had been to build the school several miles away from the settlement; his hope lay especially in a new generation, instructed and directed by teachers chosen by him. They were charged to train the children in manners, morals, and Icarian principles.

Being together as children of one family, they soon learned to love each other. There was no occasion for pride, envy, or jealousy; all dressed alike, ate the same food, enjoyed the same amusements. Having no money, none could procure for themselves what others could not have, and the time and thought wasted

in thinking what could be obtained to exhibit wealth, could be used for better purposes.

Mottoes were framed and hung in the class-room, refectory, dormitories, and halls, reminding the pupils that they were children of a people who were called to carry out a new and great principle.

The industry of the members, their peaceful and orderly habits caused them to be esteemed by their American neighbors. Although far from the ideal Icarians in M. Cabet's romance, they were a social and intellectual people, living, I am sure, a better life than can ordinarily be done under the system of individualism.

I shall in my next article give some personal reminiscences, for it was about this time that my parents decided to join the community at Nauvoo.

[TO BE CONCLUDED.]

THE MONISM OF "THE OPEN COURT" CRITICALLY EXAMINED.

BY EDMUND MONTGOMERY.

A SET of "definitions explanatory of the position of *The Open Court*" will be found prefixed to thirty-five successive numbers of the paper, from No. 90-125. It is to be expected, therefore, that these "definitions" have been carefully considered and worded, so as to express accurately the leading views it desires to propound.

Such convenient extract of essentials, condensed from the astonishing array of expository and critical knowledge displayed by *The Open Court* is a lucky circumstance for one who finds himself called upon to point out the weak places in so stupendous a pantology.

Monism is there defined as: "that philosophy which recognizes the oneness of All-existence." It does not say: Monism is that view of nature which presupposes the oneness of all existence; or that philosophy which endeavors to establish the fact of the oneness of all existence. It positively asserts that all natural appearances and occurrences form part of an "All" or "All-existence," and that Monism is the philosophy which demonstrates the truth of this fact. This, at least, is what it intends to say. For it makes no sense at all to speak—as it does—of the object of philosophical recognition as the "oneness of All-existence." By calling the supposed totality of natural phenomena the "All" or "All-existence", its oneness is already maintained as recognized, and need, consequently, not be re-recognized. "All-existence" means, as such, oneness of all existence, without further ado.

But the question really in need of philosophical elucidation is: whether or not all natural phenomena, all modes of being, do actually make up a unitary totality of existence, a supreme world-constituting "All."

It is clear that the "All" or "All-existence" of *The Open Court* is altogether, or at least very nearly, identical with what naturalistic Pantheists call the All-Being, or the One and All, the *ἐν καὶ πᾶν, deus sive natura*. *The Open Court*, then, advocates, to begin with, a pantheistic creed, or what it prefers to call a religious "faith." And its philosophy consists, or ought to consist, in the demonstration of its truth; the demonstration, namely, that all modes of being are in reality forming part of one and the same All-Being.

Now, in what manner does *The Open Court* attack this ancient and formidable problem;—a problem first philosophically propounded by the Eleatic sages; figuring then all through Antiquity as the problem of the One and the Many; resuscitated in modern times by Bruno, by Spinoza, by Schelling, Fichte, and Hegel; and at present vigorously brought forward again by our Neo-Kantians? How does *The Open Court* set about demonstrating the oneness of all modes of existence; the oneness above all of thought and being, of subjective awareness and objective reality, of the world figured in consciousness and the world outside of it?

It sets about it by placing at the head of its definitions the most debatable of all philosophical propositions. It asserts that "the data of experience are perceptions." In this innocent looking little nutshell of a proposition lies snugly encased the entire world-deep mystery of thought and being, and with it the fate of every monistic persuasion.

First of all, it is clear that not only perceptions, but also such imperceptible states of being, as hunger thirst and other appetites, as love, hope and other emotions, are furnishing manifold and distinct data of experience quite different from those of perception. Indeed in our human life these imperceptible states of being play an overwhelmingly significant part, to which perceptions are hardly more than incidental incitements.

But as an axiom upon which *The Open Court* grounds its Monism, what does it really mean by "perceptions", by this its only fund of experiential material? Where, we must ask, are perceptions, as modes of existence, actually located? Can there be a doubt that they have their existence within the perceiving individual? They arise by means of sense-stimulation in organic beings as part of their inner awareness or conscious content. *The Open Court* does not deny this. On the contrary it firmly asserts it. Consequently, it virtually maintains in its leading axiom or definition, that the data of experience, namely what we find given to the cognitive faculty out of which to constitute our world-conception; that this the only mode of existence of which we are directly cognizant, is of a mental or conscious nature. For

"perceptions", its sole avowed data of experience, are incontestably, as such, of conscious consistency; are, in fact, our own mental states.

And here, at the outset, the fundamental, ineluctable alternative offers itself to philosophical choice. A positive decision, one way or the other, is peremptorily called for. *The Open Court*, if it desires to be consistent, philosophic, scientific, and not merely to rummage among the medley of philosophical surmises in search of plausible support for its preconceived faith;—if it desires to take rank among serious thought, it will find itself—on the strength of its first and leading proposition—either driven to pure Idealism, or forced to acknowledge that perceptions signalize a reality beyond themselves. The first decision would transform its eclectic faith into straightforward Spiritualism, in which case it might rightfully continue to call itself Monism. The second decision would unavoidably entangle it in the despised labyrinthine intricacies of what it takes to be agnostic Dualism, the very mode of thought against which its missionary warfare is chiefly directed. And then in this latter instance, if it had sufficient courage and patience still to hold on to its monistic faith, it would find itself burdened with the genuine monistic problem; the problem, namely, of showing that mental phenomena and physical phenomena—that which we call mind and that which we call matter—are in truth modes of appearance or phenomenal manifestations of one and the same underlying reality. And a further task would devolve upon *The Open Court*, the task to show that this reality, symbolically signalized by perceptions, constitutes in verity a godlike "All."

Either pure Idealism or inferential Realism. I can detect no other consistent position. If *The Open Court* will work out its conception that reality consists in the thorough-going interaction of all modes of existence, as constituting a Godlike "All," and as actually present in perception and cognition, and not merely signalized as something subsisting in extra-conscious latency; if it will unflinchingly pursue this train of thought, it will arrive at conclusions similar to those of the late Professor Green and of our present Transcendental Idealists. If, on the other hand, it accepts as truth the mere symbolical or representative nature of the conscious states awakened in us, and their reference to an extra-conscious world beyond and outside our mental realization of it, then it will have to come to some such conclusion, as I have myself expressed in No. 20 of *The Open Court*. "The truth we recognize by means of our human faculties is not the content of the consciousness of a supreme and all-efficient Intelligence; but simply the relations actually subsisting between the existents of our perceptible world, to which we also wholly be-

long." "Nothing supernatural is to be found behind the sensible phenomena. Our percepts faithfully represent the sundry characteristics of the outside existents which are affecting our senses; and so far as this is the case these outside existents are thoroughly well known to us." But known, of course, only symbolically as represented through perceptions within the medium of individual consciousness.

Will *The Open Court* decide for one or the other alternative; or will it switch off onto some side track? The latter seems to be the case. For in the same number from which I happened to glean its monistic definitions, (No. 112, p. 1893), I find it stated, that "so long as the law of the conservation of energy and matter remains unrefuted, the monistic conception of the world will stand unshaken." And a little further on I discover that *The Open Court*, in its eagerness to put Agnosticism to the rout, has become uncompromisingly materialistic. It maintains without winking, that "the reality itself, the world, the All," is identical with "the totality of matter and energy."

Now, the orthodox science of the material universe, when it speaks of the law of the conservation of energy, means always, unswervingly, mechanical energy impelling inert matter. Never, by any chance, does it, or can it mean some sort of hylozoistic muddle, where energy may produce mind as well as motion, and where matter may feel and think as well as move. In the material conception of the world there is, as explained in my previous article, and indeed as settled long ago, no room whatever for mind, no legitimate transition from the universe of matter and motion to that of mental states, no monistic gangway to the inwardness of things. It leads simply and irreconcilably to the thorough-going dualism of body and mind, of matter and spirit.

According to "the law of the conservation of energy and matter," on the strength of which *The Open Court* assures us "the monistic conception of the world will stand unshaken," it incontrovertibly follows, that mental states, "perceptions" included, do not form part of "the reality itself, the world, the All, the totality of matter and energy." And we have, moreover, consistently to conclude that the god-like "All" of *The Open Court* is nothing but a vast congeries of inert material particles, moved about, and made to collide and aggregate by force of mechanical impulsion. All this, however, by the way. For *The Open Court* is out and out materialistic only when it helps it to thwart some phase or other of Agnosticism.

What we are particularly anxious to learn is, how *The Open Court* gets at all legitimately to infer from "perceptions," its sole avowed data of experience, the existence of "actual energy" and "real matter." For

what it so positively proclaims as the stronghold of its monistic faith, is the direct, open-lying, non-inferential reality of such energy and matter. How, on the strength of mere perceptions, it gets to know matter and energy, as they exist independently of such perception, outside individual consciousness, is what I would like to learn.

I feel pretty certain, that, by the time it succeeds in satisfactorily settling this little question, it will find itself drawn into the whirlpool of such Agnosticism, as feels compelled to confess that "perceptions"—the actually given data of experience—cannot themselves be, or contain the true reality, of which the permanent things of our world are composed. And if its faith in some kind of Monism remains then still "unshaken," it will have a long and difficult path to travel, in order to arrive at a rationally sound foundation for it.

How shaky the ground really is, on which *The Open Court* is now basing its Monism, can be further gathered from the definitions immediately following its leading enunciation, that "the data of experience are perceptions." It asserts next, that "reality is the sum total of all that is." And then it goes on to state, that "truth is the conformity of cognition to reality." This last sentence tells us plainly that there is first "reality," and then "cognition" of it; that, consequently, reality is after all not "the sum total of all that is."

It seems, indeed, obvious that the cognitive process, which goes on within the subject, represents—through the conscious or mental medium of sensations, perceptions and thoughts—the objective reality of a world, which it infers as existing outside the perceiving subject, and as continuing to exist independently of being thus occasionally perceived and cognized.

By distinguishing "reality" from its "cognition," *The Open Court* finds itself again unawares in the midst of the agnostic vortex. For "perceptions," its "data of experience," are undeniably conscious or mental means by which the subject is led to cognize a reality outside itself; a reality whose existence together with its characteristics, is consequently merely inferred through such symbolical representation; a reality, therefore, not positively known as it actually is and persists to be, when not thus symbolically represented in the conscious medium of the subject.

This agnostic conclusion can be evaded only in one way, and that is by asserting that the reality which seems to exist outside the cognizing subject, is in truth identical with the conscious data by which it is recognized; identical with perceptions and thoughts; identical, therefore, with mind or spirit.

Will *The Open Court* evade the Agnosticism involved in the "Relativity of Knowledge" by frankly joining the idealistic camp? or will it go on shilly-

shallying; siding now with this, now with that mode of thought? Its judicial power should be impartially wielded in the faithful service of scientific truth. It should not play the part of a biased attorney for the defense of foregone conclusions.

Little need be said about *The Open Court's* "religion of Monism." It declares that it "teaches the individual, as part of the whole, to conform to the cosmical laws of the All"; that "religion is man's aspiration to be in harmony with the All"; that "morals are man's conduct in so far as it is in unison with the All."

As stated in my first article, I can find no meaning at all for these high-sounding enunciations. "The cosmical laws of the All" are so far as I can see, principally the law of gravitation, the law of the transmission of light, of electricity, and such like. I know well enough that we have to conform, for example, to the law of gravitation. But I can detect no trace of religion or morality in such conformity. On the contrary, it may, at times, be moral, or at least eminently prudent, strenuously to resist conformity to the law of gravitation; as, for instance, when deadly enemies meet at the edge of a precipice. Cannibals, who slay and devour their enemies conform more directly and completely to "the cosmical laws of the All," than the man who, Christlike, offers no violent resistance to those who attack him.

It seems to me that the special selection and use made by human beings of the multifarious opportunities offered by nature, is that which first of all introduces the moral element into the world we know.

I am well aware that *The Open Court* in speaking of "the cosmical laws of the All," has not really the "cosmical" laws in mind, but chiefly the laws of organic evolution. But even leaving inorganic evolution with its general cosmical laws out of account, organic evolution—as explained by Darwinism—has to be pronounced out and out fatalistic, and containing therefore no trace of morality. Judged by the standard of morality, organic evolution has been brought about by pre-eminently immoral means. Morality enters into the process only when natural evolution becomes controlled for ethical purposes by man's power of rationally interfering with the otherwise non-rational and exorbitantly cruel disposition of nature in general. Morality is of human origin. It emanates from the rational understanding of man's social or hyper-individual nature.

And, as regards religion, I, for one, can find no incitement for it in the deaf and blind cosmos, that lies outstretched there in infinite space, insensible to our joys and woes. I can detect religion, if religion it may still be called, only in the enthusiastic devotion

lavished by generous hearts on the progressive exaltation of the inner worth of human existence.

IS MONISM UNTENABLE?

THE ONENESS OF THE ALL.

DR. MONTGOMERY regards the statement that monism recognizes the "oneness of the All" as "making no sense." He says:

"By calling the supposed totality of natural phenomena the All or All-existence, its oneness is already maintained."

Dr. Montgomery accordingly believes that the words "oneness" and "all existence" are tautological. This is not so. The All might be a combination of many disparate things. The All might consist (as, for instance, Dr. Montgomery himself suggested in his last article) of matter and of mind. There is nothing of the concept "oneness" contained in the word "All." The All may be a sum of many things or of two sets of order as dualists maintain. A sum of disparate things represents no oneness. But the All may form a unit consisting of many parts which are pervaded by common laws; and the latter view is that of Monism. If our learned friend can supply no better argument, we shall retain the definition, "Monism is that philosophy which recognizes the oneness of All-existence."

Dr. Montgomery then asks:

"Now in what manner does *The Open Court* attack this 'ancient and formidable problem,' viz., that of the oneness of the All?"

The answer ought to have been, By investigating the formal laws of the universe, the nature of which is laid down in the formal sciences.

The Universe appears to us as a Cosmos; and the cosmic order of the Universe depends upon the formal laws. So long as the formal laws retain their universality, and so far as the rule "twice two equals four" holds good, there is a uniformity of nature which is the condition of all order in nature.

This has been explained at length in *Fundamental Problems*, especially in the chapter Form and Formal Thought; but Dr. Montgomery takes no notice of it; nor does he quote any passage in order to substantiate his condemnation or to prove a fallacy in the arguments. There is accordingly no ground for being concerned about the unfavorable verdict he pronounces.

PERCEPTIONS AND IMPERCEPTIBLE STATES.

Instead of investigating the answer concerning the problem of the oneness of the All which is given in *Fundamental Problems*, Dr. Montgomery discusses the definition which is only indirectly connected therewith, that "the data of experience are perceptions."

Dr. Montgomery says:

"It is clear that not only perceptions, but also such imperceptible states 'of being, as hunger, thirst, and other appetites, as love, hope and other emotions are furnishing manifold and distinct data of experience, quite different from those of perception. Indeed in our human life these imperceptible states of being play an overwhelmingly significant part, to which perceptions are hardly more than incidental incitements.'"

Are not hunger and thirst perceived? If they are perceived, are they not perceptions? Surely we must not say that they are "imperceptible states." Dr. Montgomery seems to confound perception with sense-perception. In saying that perceptions (i. e., sense perceptions) are hardly more than incidental incitements, he makes a bold assumption. If sense-perceptions were mere incidental incitements, the origin and growth of mind, all intellectual life, would be mere hap-hazard, a fortuitous effect, a mere matter of chance.

It is strange that Dr. Montgomery calls the statement that the data of experience are perceptions "the most debatable of all philosophical propositions." How does this verdict agree with

the lesson he undertook to give us in his first article concerning "the truth that the outspread world we know is first of all our own sense-awakened individual perception?"

THE ONLY QUOTATION, MISQUOTED.

In discussing the views of *The Open Court* Dr. Montgomery simply makes sundry disconnected remarks upon a few definitions; but he avoids quoting any coherent passage. How glad I was while perusing his criticism, to find at least one quotation. Dr. Montgomery says of *The Open Court*:

"It maintains without winking that 'the reality itself, the world, the All,' is identical with 'the totality of matter and energy.'"

Since this expression flatly contradicts those views that have been propounded in *The Open Court*, and since I could not remember ever having used such a phrase, I looked the passage up (in No. 112 p. 1893, of *The Open Court*) and found that I had made a statement in opposition to the agnosticism of Miss Mirabeau Brown, who believes that "all things are from one source, that source being unknowable." I said that matter and energy, the world, the universe have no source; they are eternal.

The passage literally quoted runs as follows:

"But reality itself, the world, the All, the totality of matter and energy, has no source. It is eternal."

If a number of things or ideas are enumerated concerning all of which it is said that they are not derived from a source, how can that imply that these things are all identical? These terms are of equal value *only* in so far as the same thing can be predicated of them. There is not one word in the passage about reality being "identical with" the totality of matter and energy. It is true that Dr. Montgomery does not include the clause "identical with" in quotation marks, but these two words are after all that part of the sentence which gives sense to it. And the Doctor in order to make this statement emphatic, adds that it is maintained "without winking."

The totality of matter and energy are by no means the whole of the world. For the feelings which accompany certain modes of motion are not included in the term energy; and at the same time the forms of things are neither matter nor energy. And yet they are of great importance. So are feelings; and we cannot say that they do not exist simply because they are contained in neither of the abstractions energy and matter.

It is unfortunate for Dr. Montgomery that the passages in which these subjects have been discussed and which stand in flat contradiction to the view which he unwarrantably assumes to be held by *The Open Court*, have entirely escaped his attention.

The only quotation which Dr. Montgomery has made in either of these articles, is a gross misquotation.

INFERENCES MADE FROM A MISQUOTATION.

Dr. Montgomery's misquotation, that the All is "identical with" the totality of matter and energy leads him into worse blunders. He makes inferences from that statement and maintains that these inferences are part of our Monistic philosophy. He says:

"It incontrovertibly follows that mental states, 'perceptions' included, do not form part of the reality itself."

and

"The godlike All of *The Open Court* is not dug but a vast congeries of 'inert material particles.'"

That this is not so, has been repeatedly maintained in *The Open Court*, in Mr. Hegeler's articles, as well as in *Fundamental Problems*.

IS COGNITION UNREAL?

Dr. Montgomery quotes the definitions: "Reality is the sum total of all that is"; and "Truth is the conformity of cognition to reality." He adds:

"This last sentence tells us plainly, that there is first 'reality' and then 'cognition,' of it, that consequently, reality is after all not 'the sum total of all that is.'"

I should really like to know where cognition is excluded from reality. Every thing that exists is called real, and reality is the sum total of all that is. Cognition is real* and things cognized if they exist, if they are no mere illusions, are real. If a cognizing being attempts to follow the Delphic rule of self-knowledge, it attempts to cognize itself. Is that "self" no reality? Is it not also an object of cognition? If a cognition agrees with or conforms to the cognized object, be that an outside thing or self, the cognition is called true.

MORALITY AND THE ALL.†

Dr. Montgomery maintains that he can detect "no trace of morality" in the All, neither in the inorganic nor the organic laws of cosmical existence. He adds: "Morality is of human origin."

I am here again at a loss how to account for Dr. Montgomery's logic. Is the "human" not a part of the All? If it is not, it must be supernatural, and this is a conclusion which Dr. Montgomery does not accept. Dr. Montgomery looks around the whole universe, he includes in his concept "All" everything—except man.

There is an old Swabian *Volkemärchen* about nine Gothamites who went down to the beach to take a bath. They were bold swimmers and when they returned to the shore, they counted whether their number was complete. Every one of them counted his eight comrades and forgot himself. So they soon agreed that one of them must have been drowned. Their grief was unspeakable until a stranger passed by who enquired into the cause of their lamentations. He perceived at once where the trouble lay, and bade them dip their noses into the sand and count the marks. They counted nine and returned home full of thanks and gladness. The lesson of this story is that if you count all, you ought not in your natural modesty forget to count yourself also.

We agree with Dr. Montgomery that morality in a certain sense is of human origin.‡ But the laws of human society are nothing outside of the All. Dr. Montgomery must not exclude himself and his fellowmen from the particulars which make up the Cosmos.

How does a man become moral? Simply by conforming to the laws of nature especially to the laws that build up human society.

Dr. Montgomery detects no morality in a conformity to law and mentions especially the law of gravitation. He says:

"It may at times be moral, or at least he eminently prudent to resist conformity to the law of gravitation; as, for instance, when deadly enemies 'meet at the edge of a precipice. Cannibals who slay and devour their enemies conform more directly and completely to the cosmical laws of the All than the man who, Christlike, offers no violent resistance to those who attack him.'"

Dr. Montgomery has strange views as to conforming to laws. He means by "conforming" a submission without any attempt to adapt the situation to the occasion; we mean an adaptation to the law so that the same power in nature that threatens to destroy will be used to preserve and to build up. §

* Compare in *Fundamental Problems* p. 205 the passage on the reality of ideas and ideals. "Ideals are the most intense realities imaginable," etc.

† Compare with this article the chapters "The Oneness of Man and Nature" and "Ethics and Natural Science" in *Fundamental Problems* pp. 207, 226.

‡ Ethics we should say is human, but morality is found also in the animal kingdom.

§ Concerning the moral law of the Christian doctrine "Resist not evil," an explanation will be found in the leading article of No. 132. That the moral law "Love thine enemy" develops naturally Prof. Max Müller has proved in the articles "The Natural Origin of the Supernatural" (No. 143) and "Religion, Natural" (No. 145). Prof. Max Müller quotes the great moral teachers who lived before Christ, as having uttered the same doctrine as that of Christ. The universality of the evolution of moral ideas proves that morality is of a natural growth.

Why is Cannibalism said to be more in conformity with the laws of nature than morality. The ground on which Dr. Montgomery maintains it, is not stated. However in the scale of evolution the cannibal ranges lowest, while a moral man ranges highest, and the moral man survives the cannibal.* Is a moral man less natural than a beast of prey? Is he not a man, and in addition, a moral man, because he understands more of nature's laws and conforms to them?

That all human efforts to improve nature can be made by the means of nature alone, is indubitable and can be disputed only for the sake of controversy. Maudsley says (i. c. p. 525):

"There is going on a recreation of nature by human means, but nature makes the means:

'Yet nature is made better by no mean,
But nature makes that mean; so, over that art,
Which, you say, adds to nature, is an art
That nature makes.
This is an art
Which does mend nature—change, rather; but
The art itself is nature!'"—*Winter's Tale*.

MORALITY AND FATALISM.

The last mentioned misconception of Dr. Montgomery's leads us to another error of his. He says that not only Darwinism but also "the mechanical world-conception is absolutely fatalistic."

Dr. Montgomery, who claims to have entered the precincts of modern thought by reproaching *The Open Court* that it has not, seems to be quite unfamiliar with one of our most profound thinkers, who is fully imbued with modern thought. It is Professor William Kingdon Clifford.

Professor Clifford takes exactly the same position as does *The Open Court*. That which is defined as "Religion" in *The Open Court*, Clifford calls "cosmic emotion." In his article "Cosmic Emotion" he says:

"The social organism itself is but a part of the universal cosmos, and like all else is subject to the uniformity of nature. The production and distribution of wealth, the growth and administrative machinery, the education of the race, these are cases of general laws which constitute the science of sociology. The discovery of exact laws has only one purpose—the guidance of conduct by means of them.† The laws of political economy are as rigid as those of gravitation; wealth distributes itself as surely as water finds its level. But the use we have to make of the laws of gravitation is not to sit down and cry 'Kismet!' to the flowing stream, but to construct irrigation works."

THE MECHANICAL EXPLANATION AND THE ORIGIN OF FEELING.

Dr. Montgomery says in his first article:

"The intrinsic animation of all matter . . . is wholly antagonistic to the mechanical conception."

His argument is as follows:

"If material particles were alive, were capable of originating from within any kind of motion, the entire mechanical world-structure would instantly fall into chaotic confusion."

Certainly it would, if life is to be interpreted as Dr. Montgomery interprets it in the foot note, where he says of a brain molecule that it "should wander from its place or path without an adequate mechanical cause."

I have not as yet met among philosophers one whose idea of life consists in his supposition that there is a capability of "originating from within any kind of motion," if by "originating" is meant creating motion from nothing. Kant, with whose criticism modern thought commences, calls every world-conception which stands in contradiction to the mechanical principle "a philosophy of indolence" (*faule Weltweisheit*.)

Let me quote as an instance the following passage from Kant:

"If people can free themselves from an old and unfounded prejudice as well as from the philosophy of indolence which under a pious mien at-

* Morality and the principle of absolute non-resistance should not be confounded.

† The italics are ours.

tempt to hide a lazy ignorance, I hope to found upon irrefragable reasons a sure conviction first that the world has a mechanical development out of universal natural laws as the origin of its constitution, and secondly that the mode of its mechanical origin such as we have represented it, must be true."

"Reason is exceedingly interested," says Kant, "in not dropping the mechanism of nature in her creations, and in not passing it by in their explanations; because without it no comprehension of the nature of things is possible."

But how is it as to the origin of the organized life of plants and animals? Can the mechanical principle be shown to hold good here also? Kant has not, and with the scientific material at his disposal could not have succeeded in applying the mechanical principle to the origin of organization. He says in another passage:

"I think we can say, in a certain sense and without exaggeration: Give me matter, and I will build out of it a world, which means: Give me matter, and I will show you how a world is to originate therefrom."

Having described the laws that shape planetary systems, Kant continues:

"However, can we boast of the same advantage concerning plants and insects? Are we able to say, Give me matter, and I will show you how a grub originates? Do we not here stop at the first step, hampered by ignorance concerning the true inner quality of the object and the complexity of its internal variety? It must not be wondered at if I dare to say: that rather the formation of all the celestial bodies, the cause of their motion, in short the origin of the whole present constitution of the world-structure will be comprehended, before we understand the generation by mechanical principles of a single herb or grub."

Kant expresses himself very guardedly. He does not deny that science will in time be able to arrive at a mechanical understanding of the origin of a plant or a grub. He does not deny that the process of life, so far as its motions are concerned, takes place in strict accord to mechanical laws. And if he denied it, how could he call any philosophy that attempts to set aside the mechanical principle, *faule Weltweisheit*?

* * *

All that which Dr. Montgomery says about hylozoism is irrelevant, because he takes the term in the sense which implies that hylozoism believes in besouled atoms endowed with the old-fashioned freewill, so that an atom might combine with another atom, or if it pleased might not. Does he expect us to defend that windmill?

If the expression "originating from within any kind of motion" means the change of potential energy into kinetic energy, then indeed every particle of matter is alive. The stone in your hand, if you let it go, will originate motion from within. You need not impart to it any energy. The potential energy is in the stone. The stone being of a certain mass, its energy depends upon its position at a certain distance from the centre of the earth. In the sense that under special conditions things change a definite amount of potential energy into its equivalent of kinetic energy (i. e. motion) even stones are alive.—Will Dr. Montgomery deny this?

What is life in the usual and limited sense of the word, viz., the organized life of animals, but motion accompanied with some kind of feeling? Motion everywhere takes place according to strict and irrefragable laws which we call mechanical. Energy everywhere remains energy, it never produces feeling. Energy may seem to disappear, but it does not, it simply becomes latent and in that case is called potential energy. Feeling however, is not a product of motion, but feeling accompanies certain motions.

Dr. Montgomery's quotations are excellent, and as they corroborate our position we repeat them here. Locke says:

"Body, as far as we can conceive, being able only to strike and affect body; and motion, according to the utmost reach of our ideas, being able to produce nothing but motion, so that when we allow it to produce pleasure or pain, or the idea of color or sound, we are fain to quit our reason, go beyond our ideas, and attribute it wholly to the good pleasure of our maker."

And Leibnitz says:

"We are constrained to confess that perception and whatever depends upon it, are inexplicable upon mechanical principles; that is by reference to forms and movements. If we could imagine a machine the operation of which would manufacture thoughts, feelings, and perceptions, and could think of it as enlarged in all its proportions, so that we could go into it as into a mill, even then we would find in it nothing but particles jostling each other, and never anything by which perception could be explained."

We add a passage from Prof. Clifford:

"To say: 'Up to this point science can explain; here the seal steps in,' is not to say what is untrue, but to talk nonsense. . . . But the question, do 'the changes in a man's consciousness run parallel with the changes of motion, and therefore with the forces in his brain?' is a real question, and 'not prima facie nonsense.'"

That which Clifford here characterises as "the stepping in of the soul," Dr. Montgomery calls "the impulses of the hypermechanical," which we shall take occasion to discuss later on.

We need not imagine that the motion of every single atom is accompanied with feeling; but we can, without committing ourselves maintain that the motions of all atoms are accompanied with elements of feeling; and these elements of feeling produce in certain combinations actual feelings.

Nature is not animated in the sense that there is a soul in every stone; yet nature is alive in the sense that all particles contain the elements of life, so that the organized life of plants as well as animals can and will sprout forth simply by organizing.

Let me add here that "the application of the mechanical principle" is very different from that theory which Dr. Montgomery calls "the mechanical world-conception." The mechanical principle is applicable to all motions. Mechanics explains, i. e. describes in the simplest and most comprehensive way, all kinds of motion; but mechanics does not deal with those things which are not motions; accordingly it does not and cannot be expected to explain them. Mechanics for instance does not explain feelings.* But the mechanical world-conception, as represented by Dr. Montgomery, is supposed to explain everything by laws of motion.

The mechanical principle explains the motions of the heavenly bodies; it explains (viz., it describes in formulas most concisely and at the same time exhaustively) gravitation, but it does not explain gravity. According to certain laws gravity under special conditions makes matter move, or if a special lump of matter can not move, it makes matter exert upon other matter a definite pressure.

Dr. Montgomery says:

"According to the mechanical world-conception, life is not and can not be an original endowment of matter, but only a result of the peculiar mechanical disposition and movement of aggregate particles."

There can be no objection to Dr. Montgomery's formulizing and refuting a special idea of what he calls "the mechanical world-conception." But objection must be made to his assertion that this "mechanical world-conception" has ever been proclaimed or defended in *The Open Court*. On the contrary it has been rejected. That view which has been defended is the application of the mechanical principle to all motions.

* * *

There is one more reason why to Dr. Montgomery all complex motions the effects of which depend upon special combinations or forms, will appear mysterious. He considers form as "a causatively and ethically indifferent grouping of material particles."

A missionary who had lived among the Zulus, told me that he once overheard the talk of two savages on the witchcraft of the white man. "But look here," the one said, "if I throw a piece of iron into the water, it will sink. The white man brought to our river several pieces of bent sheet-iron, and every single part would sink if we threw it into the water. But the white man put

the parts together, and although it was much heavier than our canoes, it floated. I have seen it with my own eyes, and it is true by my life." The other Zulu replied, "The white man can do this only by witchcraft." These Zulus apparently believed that the forms of things are "causatively indifferent."

If we misunderstand the importance of form, if we consider it as "a causatively and ethically indifferent grouping of material particles," we shall inevitably drop into mysticism, agnosticism, or the belief in witchcraft. The belief in witchcraft develops among theologians as supernaturalism, and among metaphysical philosophers as a theory of "hypermechanical impulses."

THE HYPERMECHANICAL.

Dr. Montgomery says concerning Mr. Hegeler's comparison of the soul to the phonograph:

"The same hypermechanical faculty which selects for reproduction among 'all registered marks those intended for a special purpose, this same selective faculty imparts evidently also the corresponding impulses to the vocal chords. The process transcends altogether mechanical interpretation."

If the word "hypermechanical" means "non-mechanical" we have no objection to the idea that there is something hypermechanical, for feeling is indeed non-mechanical. Yet in that case we must object to the proposition of Dr. Montgomery, that the non-mechanical faculty "imparts impulses." The non-mechanical has nothing whatever to do with the mechanical, it can impart no impulses. The idea of a non mechanical impulse is a flat *contradictio in adjecto* no less than the phrases 'a living corpse' or 'a non-existent being.'

Dr. Henry Maudsley in his "Physiology of Mind," p. 70, discusses the selective faculty with reference to Mr. Spencer's comparison of the soul to a piano. Maudsley says:

"Ideas," Mr. Herbert Spencer remarks, ('Principles of Psychology,' Vol. VII p. 485.) 'are like the successive chords and cadences brought out from a piano, which successively die away as other ones are sounded. And it would be as proper to say that these passing chords and cadences thereafter exist in the piano, as it is proper to say that passing ideas thereafter exist in the brain. In the one case as in the other, the actual existence is the structure which under like conditions again evolves like combinations. . . . The existence in the subject of any other ideas than those which are passing, is pure hypothesis absolutely without evidence whatever.' This analogy, when we look into it, seems more captivating, than it is complete. What about the performer in the case of the piano and in case of the brain respectively? Is not the performer a not unimportant element, and necessary to the completeness of the analogy? The passing chords and cadences would have small chance of being brought out by the piano if they were not previously in his mind. Where, then, in the brain is the equivalent of the harmonic conceptions in the performer's mind? If Mr. Spencer supposes that the individual's mind, his spiritual entity, is detached from the brain, and plays upon its nervous plexures, as the performer plays upon the piano, his analogy is complete; but if not, then he has furnished an analogy which those who do take that view may well thank him for. There is this difference between the passing chords and cadences of the piano and the passing chords and cadences in the brain—and it is of the essence of the matter—that, in the former case, the chords and cadences do pass and leave no trace of themselves behind in the structure of the piano; while, in the latter case, they do not pass or die away without leaving most important after-effects in the structure of the brain; whence does arise in due time a considerable difference between a cultivated piano and a cultivated human brain, and whence probably have arisen, in the progress of development through the ages, the differences between the brain of a primeval savage and the brain of Mr. Spencer. . . . With the brain, function makes faculty; not so with the piano."

If you put the question to me, for instance, of how much five times five is? I shall answer twenty-five. There is no hypermechanical impulse that prompts the answer. There is not a selective faculty in me, as Dr. Montgomery imagines, which among all the numbers selects this and no other number. But there is a memory structure which when innervated says: "five times five is twenty-five." If any one asks: "How much is five times five?" it is this question which as soon as it is perceived, innervates the memory structure "five times five is twenty-five;" and possibly it awakens many other memories associated therewith. I may

* This has been fully explained in Fundamental Problems "Can the world be mechanically explained," p. 115-122.

think of the teacher who first taught me arithmetic; or the picture of my multiplication table may appear before my eyes. The answer "five times five is twenty-five" is under ordinary circumstances accompanied with feeling or consciousness.

Not every instance is so simple. There are of course mental processes that are much more complicated, but there is not one in which the motions that take place in the brain can be thought of as being not strictly in accordance with mechanical laws whether molecular or molar.

Take for instance the present situation of my mind. Dr. Montgomery maintains of thought and also of the muscle-innervation of speech, that "this process transcends altogether mechanical interpretation," and he believes that a "hypermechanical faculty" steps in, which for all I know about this most modern interpretation of mental activity, might be the soul. In hearing or reading these propositions a whole army of memories is aroused in my brain. All my conceptions about mechanics and its rigid applicability to all sorts of motion awake. There is not a selective faculty in my brain which rouses these conceptions from their latency, but the reading of Dr. Montgomery's words irritates them and sets them in motion. The process, on the one hand, is in its causal nexus as much mechanical as any irritation that produces a reflex action. It is, on the other hand, not mechanical in so far only as these motions in my brain are accompanied with feelings. The word "hypermechanical" finds among the memories of my brain no clear conceptions as to what the word can mean. Yet there is somewhere a maxim registered "Strive for clearness of thought," and there is near by an aversion against words which convey no definite ideas. The maxim and the aversion are registered in my brain in the shape of nervous structures. Both are irritated, the one immediately after the other, so that a reaction takes place which finds verbal expression in a complaint about the doctor's vagueness.

There is a peculiar feature in soul-life which consists in the limitation of consciousness. Similarly as in vision only one object at a time can be in the central field of vision, viz., in the yellow spot where vision is most intense, so in consciousness one idea only, one combination of ideas, one perception, or a thought concerning a perception, one aim, or one activity can at one time fill this centre of mental life. When several ideas are awakened, that which at the time is strongest will attain a state of consciousness. As soon as it has been attended to, it naturally loses its interest, and another idea, which in the mean time has become the strongest will follow. A combination of both may take place and thus new thoughts, discoveries, inventions, ideals, may grow from such beginnings.

The chief progress modern psychology has made, is that it is no more in need of what Dr. Montgomery calls the selective faculty, and which he can explain in no other way than by the supposition of "hypermechanical impulses." "The hypermechanical faculty," he says, "selects for reproduction among all registered marks those intended for a special purpose."

Dr. Montgomery professes "to deny definitely the existence of a separate deity and the personal continuance after death." In one word he rejects supernaturalism. However, what is his "hypermechanical" but supernatural? Is it not supernaturalism in a new shape? I must confess that the old supernaturalism in its naïve grandeur combined with its ethical importance appears to me much more imposing than Dr. Montgomery's artificial view of the hypermechanical.

SUMMARY.

In reviewing the whole criticism I am struck with the fact that Dr. Montgomery everywhere criticizes himself. Dr. Montgomery is a gentleman of unusual learning, but his learning is like a vast labyrinth in which he has lost his way. The task of ar-

ranging all the facts of science into an orderly and monistic system is not so hopeless as Dr. Montgomery imagines. If he would only give up the idea that his own views represent the modern and most progressed phase of science, he might discover that in many quarters of the world thought has progressed beyond those doubts which he has not yet overcome.

Dr. Montgomery has struggled in vain to acquire clear ideas about several vital points; his attempts to overbridge the gap that yawns between subject and object are frustrated. The oneness of matter and mind appear from his standpoint as a mystery. He has tried in vain to find the mechanical explanation of mental processes and he has not succeeded in overcoming the fatalism that is apparently attached to the conception that the world is throughout determined by law. The criticisms presented by him must be criticisms of those solutions which Dr. Montgomery supposes to be possible, for certainly they are throughout different from the views set forth in *The Open Court*. Dr. Montgomery aspires to be a monist, and he presents here the difficulties which hinder him from realizing that unitary world-conception which he understands by the term monism. We fully agree with Dr. Montgomery that the monism which he criticizes is an untenable view.

The unsolved problems with which Dr. Montgomery troubles himself are not quite unfamiliar to me. I have to some extent also busied myself with the history of philosophy, and I found myself in the same mazes when I attempted to escape from the untenable position of supernaturalism. My orthodox teachers, as well as many earnest searchers for truth in the liberal camp, assented to certain complaints about the insufficiency of monism; and that kind of monism was much the same mechanical world-conception as that of which Dr. Montgomery speaks. It was maintained that from the standpoint of a mechanical world-conception, (1) life could not be explained because feeling is no motion and cannot originate from motion, (2) that ethics was impossible because of the fatalism of the mechanical view, and (3) it afforded us no assistance in over-bridging the gap between subject and object. One hope only seemed left, that an unexpected discovery would be made which might serve to reconcile all those contradictions, as there might be a monistic root out of which matter and mind had grown. Body and mind would then be proved to have "a common origin in one and the same underlying reality." This is the phase in which Dr. Montgomery has become stationary.

As soon as philosophy began to despair of ever finding the monistic root it became agnosticism. The verdict was pronounced: The underlying reality is unknowable. When a thinker goes beyond his depth he fondly imagines he has reached the unfathomable. The unfathomable being attained, it appeared as if the last word had been spoken and the history of philosophy was closed. Thus agnosticism brings progress to a halt.

Dr. Montgomery's criticism is a most valuable contribution when considered as the key to the thought of a past period in the history of philosophy. This epoch which Dr. Montgomery represents is most interesting and the difficulties with which human thought was then struggling should neither be forgotten nor underrated.

P. C.

CURRENT TOPICS.

WHILE the political world is convulsed with national and international questions of mighty import, before which American statesmanship stands baffled and confused; while society in its comprehensive unity is disturbed and bewildered by the portentous conflict going on between capital and labor; while the revision of creeds is filling the religious world with misgivings and doubt, it adds to the general anxiety that the fashionable world, "society" in its narrow and exclusive character, is tormented by a dispute

over a question of etiquette, precedence, and pride. There is gloom in Vanity Fair. Some envious woman has, figuratively speaking, thrown an apple of discord into the Post Office at Newport, in the form of a letter addressed to "Mrs. Astor." It appears that a golden tint is given to the Newport "season" by the presence of two ladies, each bearing the name of "Astor." One of them is the widow of the late possessor of the Astor title, and the other is the wife of the present owner. One is Mrs. William, and the other is Mrs. William W.; but this coincidence is not in the discussion; the problem for solution is not who shall bear the name of Astor, but who shall wear the title? Which of them is "Mrs." Astor in the "etiquetrical" meaning of the word? The elder lady claims that any letter addressed to "Mrs. Astor," without the prefix William, John, or Barnaby, belongs to her, by right of seniority, as the widow of the Astor recently deceased; but the younger lady claims that such a letter must be meant for her as the wife of the Astor now alive. As the founders of the American republic in their zeal for lighter matters, neglected to provide a court of Heraldry to determine rival claims of rank and precedence, the Astor quarrel must for a time remain unsettled, to the grief of our nobility and the perplexity of snobs.

* * *

It seems probable at this moment that the Astor precedence question will involve the government itself in trouble. The inflammation of it has already spread to New York, and the postmaster of that city has given due and timely notice that he will not sit on either horn of the dilemma, when, the Newport season being over, the Astors return home. He has made the harrowing promise, a threat it may be almost called, that if the claim of precedence between those ladies be not settled, he will not give either of them any letter addressed simply to "Mrs. Astor, New York City." The dire consequence of this determination he does not see. It throws the celestial "four hundred" into high-toned anarchy, because persons writing to either of those ladies will give offense unless the title and distinction in dispute be written in the letter, and outside on the envelope. As both of them will demand all the letters in the Post Office addressed to "Mrs. Astor" and as the postmaster will refuse to deliver them, the interference of the Postmaster-General must be invoked, and a cabinet meeting called. Should the cabinet be divided on the question, as is likely, it may be necessary to appeal for social safety to an act of congress. There is an easy solution of the problem if "Society" will only follow it. As all the difficulty has arisen out of a servile imitation of English aristocracy, why not compel the English to help us out by copying them all through? When two English ladies have the same title, as always happens when a nobleman dies, leaving a widow and a married son, all jealousy is avoided by conferring upon the widow the additional title "Dowager." Why not call the elder "claimant" in this case, the Dowager Mrs. Astor? American snobbery has gone farther than that sometimes in a simian mimicry of patrician style. What would the old original Astor have said when peddling his humble wares through the city of New York, had he foreseen that his descendants in the third or fourth generation would be quarreling over a question of spurious nobility? And supposing some future Astor three or four generations hence, peddling notions like the founder of the family, what will he think of it?

* * *

The counterfeit monarchy at Washington is responsible for the adulteration of American manners, by a foolish endeavor to refine them with an infusion of courtly style. We import ceremonials from Windsor Castle, and export republican dignity. The tone of society at the capital sets the fashion, and the population there composed of government officials is graded "according to rank."

Out of this classification has grown a code of caste which earns for us the derision of those orders of nobility whose rule of precedence we have adopted for our guide. I have lately seen a newspaper which in ridicule of our servility declares that this artificial royalty is the work of silly women at Washington who try to set the fashions. Some of it no doubt is due to silly women, but more to silly men. For instance, here is an item which ought to be read with reverential awe, I quote it from a Boston paper: "It would be regarded as a high breach of judicial etiquette for Judge Brewer to go to dinner or to enter a carriage before Judge Miller or Judge Field." When "grave and reverend Signiors" like the judges of the Supreme Court, stand thus upon ceremony, shall we call women "silly" for quibbling about precedence?

* * *

No people in the world are so greedy as we are for titles, decorations, medals, badges, crests, cockades, and ceremonial mummery and flummery. As titles of nobility are forbidden by the organic law of the republic, we evade the prohibition by converting official designations into titles personal. The Secretary of State in his office, may be properly addressed as "Mr. Secretary," but elsewhere he is only "Mr. Blaine," and genuine courtesy in private life will not label or tag him with any other title than that which is common to us all. In Europe titles actually belong by law to the persons wearing them, but official station confers no personal rank in England. Mr. Gladstone although Prime Minister, was only "Mr. Gladstone, and any person presuming to patronize him or to flatter him as "Mr. Prime Minister" would be laughed at as a snob. Only in the United States was he diminished by the titles "Premier" Gladstone, "Prime Minister" Gladstone, and cheapness of that kind. We lower the American standard when we adopt those tinsel vanities, which our Constitution has discarded as frivolous, aristocratic, and absurd. In this age real titles are impertinent, imitations mean.

* * *

The tawdry fashion of giving a woman her husband's title has spread from Washington to Tombstone. It has changed our pride into vanity, and shrivelled up courtesy while trying to expand it. The papers are to blame for some of this, because the bribe of a chicken bone and a glass of wine, will turn "our special reporter" into a Jenkins in yellow plush livery, and with a footman's rapture he will tell us that "Mrs. Commissioner Biggs gave a brilliant reception last evening, at which we noticed Mrs. General Diggs, and the charming Mrs. Alderman Figgs, accompanied by her beautiful daughter Mrs. Senator Jiggs, who kept up a lively conversation with Mrs. Representative Riggs," and so on down to the bottom of the stairs. The people who pay these flatteries are snobs, and so are the people who accept them. Trades, as well as offices, are titles now. I once had the honor of an introduction to a lady who promenade through "Society" as Mrs. Conductor Gaines; her husband was a conductor on the railroad. A few days ago a newspaper, telling about the burning of a building in Chicago, said that "Elevator Operator Gibbs," first noticed the smoke. That was the stately title given to the boy who runs the "lift." More extravagant than even that was the grim and gloomy title given to "Death-Watch Osborn", a man whose duty it was to sit up with a convict sentenced to be hanged. In conferring this title we touched bottom, and this justifies the hope that a reaction will set in toward a simplicity of manners and address worthy of a sensible people.

* * *

In a recent number of the *Illustrated London News* appears this item, "The Archbishop of Canterbury and Mrs. Benson gave a garden party last Thursday at Lambeth Palace." The American mind wonders what Mrs. Benson had to do with it, not

suspecting that Mrs. Benson is the Archbishop's wife. Although the Archbishop has a high seat in the House of Lords, and is in fact a peer of parliament, with precedence above all the peers except the royal dukes, he has no personal title like the Duke of Richmond, or the Earl of Derby, and consequently his wife has none. She is therefore only Mrs. Benson. Should Mrs. Benson visit the United States she would be made miserable by the kindly blunders of the press addressing her as "Mrs. Archbishop of Canterbury Benson." This descriptive name is awkward enough, but it is not more stupid than the latest and most popular styles of address now in common use, as for instance, "Mrs. Chief of the Bureau of Statistics, Brown," and others more cumbersome than that.

* * *

A good word was invented about the time of the war to describe a mushroom aristocracy.—Shoddy. This word should be carefully preserved. Every attempt to divide us into castes based either on wealth or official station, emanates from the sect of Shoddy. In the temple of Shoddy the pews rent high, and people must have a good deal of money before they can get into the reserved seats. To be orthodox we must be born and married in the current style; and we must die and be buried in a fashionable way, if we hope to go to heaven. It is low and common to be buried in a coffin; nothing but a "casket" will suit us now. Even our good old mother tongue is too cheap for the sect of Shoddy. We must eat and drink in the French language. I have before me at this moment a *Cincinnati Gazette* describing a brilliant reception given by Mrs. Blank. This lady gave the paper a catalogue of what she had for supper. Every thing was in the French language, except one solitary article. This was "Punch," which appears at the bottom of the catalogue in honest Anglo-Saxon. It never occurred to Mrs. Blank, that in publishing the "Menu" she was giving her guests a hint that they did not often get such luxuries, and was confessing at the same time, that they were also rarities with her. In imitating the manners and customs of any foreign aristocracy we confess our own inferiority, and are sure to blunder. Our social customs ought to be in harmony with our political organization, republican and American forever.

M. M. TRUMBULL.

CORRESPONDENCE.

THE BRAIN THEOREM OF SENTIENT BEING.

"COGITO (SENTIO) = SUM"; NOT ERGO SUM.

Into the Heaven of Heavens "I" have presumed,
A mortal guest and drawn empyreal air.

To the Editor of *The Open Court* :—

I SHOULD be glad, with the consent of the Editor, to be allowed to make, in the columns of *The Open Court*, a further brief minute on the above topic; viz., that Cogitation, or Mentation, is an organic cerebral process, function, or symptom, asymptote of which supreme form of consciousness all sense, or thought, and their objects, were not even the shadow of a shade.

I know well the Zola-like (not Zola-like) odium inseparable from this ungrateful duty, in the past and present conditions of human opinion. Especially in the routine, innovation-detesting and un-idea-ed Anglo-Saxon industrial communities, in which Mr. Carnegie of Pittsburgh emphatically declares that a liberal education is fatal to success in business. But my syntax, which as *parallipomenon*, I have always sought to differentiate from pure "discovery" is so naïve, and at bottom *nono-a-days*, so much of an obvious truism, that I do not despair of making it intelligible to at least what M. Arnold calls "a remnant" even of that hide bound race. And if so, though to myself, who look to events not

to dialectics, for the realization of my Ideal, this *pis aller* is but the half-way house, the gain is probably worth the labor it entails. It is only, I cannot too often repeat, *Protogeras Redivivus*, Berkeleyism shorn of its Absolutism, Locke without his "intentional species" and other media between brain and its action, and Kantist negation of "thing in itself" without the mysticism and self-contradiction inseparable from Metaphysics and Psychology. It quite negatives, and dispenses with what is misnamed "Soul," either in Microcosm or Macrocosm, which two are one organic whole, and hence makes Body, or *Leib* (Life) and its functions, offices, or properties the Be-all and End-all of vital existence—a consummation more than apocalyptic and utterly fatal to all reconciliation between Religion and Science. The latter now expatiates in empyreal regions that dwarf all old world conceptions of Poetry, Prophecy or Devotion. And yet its scope is as simple and self-evident as Schiller, in his *Letters on the Aesthetic Education of Man*, explains of the practical side of the Critical Philosophy, of which Ueberweg affirms he was the most gifted disciple. Schiller's words are "that when freed from its technical form it connotes the immemorial assumptions (*Ansprüche*) of universal instinct implanted in his own nature in Man as Guardian, till scientific insight [Reason] makes him his own master (*mündig*)." What we understand by Induction is therefore only a full recognition of what, as instinct, was always potentially present as adumbration. As Luther translates the Greek term *Metanoia* resipiscence or a refining of our primal Self—a conception worked out poetically by Wordsworth in his sublime verses and in his Ode to Immortality from recollections of childhood—written at Tintern Abbey. In an essay on *Induction and Deduction* lately published, under my care, this view—the Platonic and Pythagorean doctrine of Vision and Revision minus the absurdity of *Metempsychosis*—is well traced home by the late Miss Naden, rectifying the, in essentials, misleading representation of Lord Macaulay, in his monograph on Bacon, and of Buckle in his *pseudo*-method of John Hunter. Descartes's famous formula, at which, inscribed on the pedestal of his statue at Tours I have seen "intelligent" British tourists guffawing as bottled moonshine, requires, therefore, the modification above noted in my motto. The *Ergo* is quite superfluous, and indeed inhibitory, as soon as we are conscious that in the only sphere of Relationalism and Rationalism, with which our, and other races have any concern, Being and Thinking (which latter is only a special mode of general sensation or Cœnesthesis) as parallelisms are one and indivisible. So that the primeval savage, while unsophisticated, is at one with the latest scientific induction—the real heresiarch and schismatic being the savage Thaumaturge or Occultist, and the specialist, scientist, and literate. Of Religion and Divine worship I need only say a word. For if we can never escape from Selfhood, and if all knowledge be an Autopsy, Narcissus-like Self-adoration can be the only form in which *Idolatry* can be exercised. It will be found that this hylo-ideal monism strongly arraigns "Nature," not as pessimistic exactly, but as haphazard, capricious, unjust, immoral and so cruel and inhuman as it is impossible to be the design and execution of an all-wise, all-powerful and all-benevolent and fatherly Demiurge. The plain fact is that when we quote the Semitic Biblical phrase "God's ways are not our ways, nor his thoughts our thoughts," we cut ourselves adrift from Deity altogether and abjure *in toto* the possibility of a superhuman basis for human thought and morals. Even Kant says: "It is reflecting reason that brought design into the world and admires a wonder created by itself." Wordsworth claims that Nature never betrays the heart that loves and trusts her. But the falsehood of the claim is at once demonstrated by the single fact that his sister and *alter idem* to whom the sentiment was addressed became a howling maniac (See Cyrus Redding's Recollections) before she reached middle age. My chief aim—though by no means my only one—is, like Lucretius, to unmask and impeach the false

Duessa Natural Religion and with it, of course, all Revelation. Protestantism, though an advance on Greek or Latin Christianity—products of the very darkest ages of civil history, has been, from its origin at the Revival of Learning, when it was promulgated as a plea for private judgment and the supremacy of the individual, or selfish conscience, all along fatally handicapped by Bibliolatry. Without that constraining influence Luther would have been entirely *Atheos*. I submit that this auto-plastic Cerebro-Cosmism is in the line of the Lutheran protest against Authority, while entirely divested of the soul-cramping ceremonies which mar and vitiate all Theology. The study of comparative Religions quite nullifies all of them. Hope for radical human amelioration seems vain that does not start from self-amelioration. Mere technology, or Realist Scientism, by specialization is a fertile—perhaps the most fertile—source of degeneration. Luther died despairing of Humanity, confessing that the Reformation had injured rather than forwarded human welfare. And Professor Huxley, in his article *Anarchy and Regimentation*, in the May number of the *Nineteenth Century* re-echoes, on anti-spiritualist data, the same pessimism. Luther's despair applied notably to the birth-place of his revolt. No one can deny, unless, like Mr. Gladstone, fanatized by Biblical pietism, that nations, in their religious phase, are retrograde and retroactive. Early in the 16th century Germany was on a par, in civilization, with the other nations of Europe. But as soon as Religion became a serious and dominant life-factor, the Fatherland sank rapidly into barbarism and anarchy, as well portrayed in Schiller's 'Wallenstein's Camp.' The Kilkeny cat catastrophe is a type of her 200 years long Skiamachy. Only in the reign of the Infidel Frederick II. of Prussia did the mother, nurse, and martyr of the Reformation slowly emerge from her suicidal vertigo or *Schwindel*. Its turning point can hardly be located earlier than the issue by Lessing, of the *Legacy of Reimarus*. And even Frederick, "the greatest of German sons," to his dying day, refused to credit the possibility of German emergence from Gothic barbarism. And, as of Germany, so of Geneva, Scotland, Holland, Huguenot France, Puritan England, short, but sharp paroxysm and the more prolonged obscurantism of New England ending in Arianism and Indifferentism. Only now are we fully able, from the triumph of the scientific method all along the line—in the moral, no less than in the physical sphere one and indivisible, by killing not scotching, to get rid of this fatal *Dens ex machina* and *juvencus*. All the leading *esprits forts* of the 18th Century, with the exception of D'Holbach and the leading scientific pioneers, as Laplace, and others, to which "remanent" Condorcet and the other Gerondist leaders belonged, were hopelessly entangled in the maze of Dualism (Theism), none the more hopeless ly than Voltaire, Rousseau, and Paine. Hence the French Terror under Robespierre and other Jacobin sentimentalists, or theophilanthropists, and the partial *fiasco* of the French Revolution, as of its homologues the Reformation and Reign of the Saints. Let us, at least of this generation, not be untrue to our prerogatives and vantage ground, neglect of which, as anachronism, must be guilt and blunders of the deepest dye, in all who aspire to teach or rule the hapless race of Mankind. Till the little "World God" sees and acts on the principle that he is to himself Heno-theos and Theotikos, Reason, I repeat, is *taboo*. Henoism (Auto-Monism) proper and Heno-theism as Dualism are clearly mutually exclusive. Man must himself—each one for himself alone—work out his own salvation (health, physical and moral) not by craven fear and trembling but by justifiable confidence in his own un-aided power, and in the assurance that happiness and its opposite are physiological states. As before stated, *ad nauseam*, Salvation, Saint, Sanctity, and all their derivatives and generally all "spiritual" phraseology, are but forms of such concrete somatic states. Keep, or regain, somatic health, including cerebral,—and that sunshine of the breast—the peace, *salom*, or *Kief* of the Oriental—passing

all expression or understanding, is our very own. Heaven and Earth and Hell, Past, Present and Future become thus the contents of our own bodily life or *Leib*. Nirvana—the archetype of all later Ideals, and Bliss including the Christian—can have no other well-spring than this serene frictionless balance of organic function.

"Hereditary bondsmen, know ye not,
Who would be free themselves must strike the blow!"

To sum up. In Hylo-idealism, which includes Hylo-zoism and the relational nature of knowledge, as well as Evolutionism, as propounded, not by Darwin, but by ancient Greek sages—is implicit the seeming paralogism and real Paradox that each *calvarium* or skull cap covers the whole realm of the internal and external "universe" i. e., of all subjective and objective knowledge. Outside Consciousness, whose seat is the Sensorium, can be only nullity. Even Chaos is *de trop* for such *Agenesis*. For under that osseous arch, as vulgarly said of the hat, lies the organism well pictured in recent numbers of *The Open Court*, in which, and by which, are transacted all the manifestations of Existence. Without this vesiculo-neurine pulp or marrow all could only be blank, unconscious nullity.

R. LEWINS, M. D.

BOOK REVIEWS.

THE WORK OF THE MINISTRY. Lectures to the Meadville Theological School. By Rev. W. L. Tilden. Boston: Geo. H. Ellis.

These lectures have been published at the request of the students of the school to which they were given, and we think their venerable author has done wisely in yielding, as he expresses it in his dedication, "the distrust of age to the sanguine judgment of youth." The resolutions which led Mr. Tilden thus to act refer to his lectures as containing words full of the spirit of manly Christianity, and as having proceeded "from the experiences of a long and useful life, devoted to disinterested and noble service of the Christian ideals." The small volume is, indeed, full of wise counsels to the Christian minister and contains much that laymen may read with profit. Mr. Tilden dwells largely on the importance of personal influence and personal character. Without the former nothing can be done, but the nature of the work depends on personal character, which is an essential element of success to all teaching, but especially of religious and moral teaching. The real value of these lectures consists in the stress they lay throughout on the great importance of that element.

Dr. Montgomery says of Mr. Hegeler (p. 2462): "He obviously believes with most unsophisticated observers that things really exist as we perceive them; that they actually consist of the tangible stuff we call matter." The error in this statement, Mr. Hegeler declares, lies in the little word "we." That something which we call "matter," is eternal. There was a time when that which Dr. Montgomery calls "we," did not exist. Mr. Hegeler explained his opinion concerning the origin of the ideas that constitute the "I" or "we" in his essay *The Basis of Ethics* (No. 1 of *The Open Court*), from which we quote the following passage:

"If a child sees an apple for the first time, the lens of the eye will throw a photograph of it on the retina, which photograph, as we now know, is fixed there for a short time, in a similar way as in a photographer's camera. From this photograph, through nerve-fibres, an analogue of the photograph is assumed to be brought to the gray matter of the child's brain, making a record there upon living, feeling matter; this has received the name 'photogram'—in this case the photogram of an apple. . . .

"If the child sees the apple again at another time, it is the 'living, feeling photogram of an apple resulting from its first sight, which is stimulated thereby and feels, or, as we say, becomes conscious of the apple. This photogram is the *ego*, for the 'instant.'"

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THE ORIGIN OF REASON.

BY T. BAILEY SAUNDERS, M. A. (OXON.)

IV.

To make the theory of evolution, as propounded by natural science, to a great extent the starting point and basis of their studies, is one of the distinguishing characteristics of modern philosophers; and amongst them Professor Noiré held an important place, and, in Germany at least, enjoyed a considerable reputation as a patient and original student of the problems of language and thought. He was formally introduced to the English speaking public by Professor Max Müller, who in the *Contemporary Review* for February 1878, gave an interesting account of the nature and historical antecedents of the evolutionist philosophy, as applied to the fundamental question, how did mind originate. That article was mainly devoted to a theory Professor Noiré had published on the genesis of language, in which it was for the first time clearly recognized that the results of philological research would have a very important bearing upon all questions of philosophy.

Noiré followed up his theory in three other publications; one, *Das Werkzeug, und seine Bedeutung für die Entwicklungsgeschichte der Menschheit*, dealing with the important part played by the *tool* in the development of human reason; another, on the origin of reason, viewed in connection with Kant's critical standpoint, and the third, *Logos, Ursprung und Wesen der Begriffe*, which carried out further and completed the systematic exposition of the theory. A work aiming at the formation of a theory of general ideas which should be satisfactory alike to the metaphysician and the physicist, and add one more argument for reconciliation in the feud between philosophy and science, professing, in the course of its speculation, to have discovered "the protoplasm of reason," cannot fail to be interesting to an age, the main concern of which appears to be, not so much what man is, as whence he comes.

To the question, whence man comes, Professor Huxley has given a clear and definite answer. "Comparative anatomy," he says, "is easily able to show that, physically, man is but the last term of a long series of forms, which lead, by slow gradations, from the highest mammal to the almost formless speck of living protoplasm, which lies on the shadowy bound-

dary between animal and vegetable life," while "comparative psychology, though but a young science, and far short of her elder sister's growth, points to the same conclusion."* But still there are grave difficulties to be met, and no one has as yet discovered how it is that a nervous state can produce consciousness, or how consciousness passes into reason. The same brilliant exponent of scientific principles has elsewhere admitted that "in ultimate analysis everything is incomprehensible, and the whole object of science is simply to reduce the fundamental incomprehensibilities to the smallest possible number."† It is evident that the branch of knowledge which deals *par excellence* with incomprehensibilities, Philosophy, must have something to say in the matter.

Before he undertook the investigation of the nature and origin of concepts, Noiré set before himself to explain the evolution theory in the light of metaphysics. To this end he published, some years ago, a series of works expository of a system of monistic thought, exemplifying, in the course of his theories, the paramount influence which the teaching of physical science has had upon all recent metaphysical speculations. We have only to point to the founder of modern philosophy for a similar instance of the way in which Science can affect Philosophy; for the universal doubt from which Descartes started was beyond question suggested to him by the complete revolution produced by Copernicus and Galileo in the ordinary notions of physical science. If all the world had been wrong in thinking that the sun went round the earth, would it be wonderful, Descartes might have asked, if all philosophers were in error as regards their fundamental principles. So in our day the Kantian philosophy has been assailed with weapons forged in the school of physical science. Let us bear in mind, however, that it will require something more to make that mighty fabric fall than a mere resuscitation of the arguments on the ruins of which it was built. If Kant is true, and if modern science is true, then they can each present but one side of a greater truth; and if a reconciliation is possible, it is in this reconciliation that our hope for the future lies. A system of monistic thought, or monism, as it is sometimes called, endeav-

* Hume, p. 106. English Men of Letters Series.

† Critiques and Addresses, p. 285.

ours to overcome the opposition between mind and matter, as being in ultimate analysis two sides or aspects of the same thing. The very fact that each of these aspects of the world has resisted all attempts to reduce it to the other, points to the hypothesis that there is some unity underlying both. In his earlier works, Noiré assumed the existence of elementary monads endowed with a property which was on one side *motion*, and on the other *sensation*, neither being prior to the other. Evolution was then the process by which complex monads were formed out of simple ones; sensation directed motion, and room was thus provided for a teleological principle in nature. But there is nothing in this view which gives any intelligible account of the *genesis* of consciousness,—the main difficulty in all evolutionist philosophy.

The question, however, which Noiré set himself specially to consider in his later years was concerned, not with the genesis of consciousness, but with the genesis of reason; or as he preferred to state it—What is the origin, and what is the nature of Concepts? It is undoubtedly true, as Noiré recognized, that on its answer to this question will depend the validity of any theory that professes to explain the origin of the human faculties. Even Mr. Romanes sees clearly that this is the first and foremost difficulty to be overcome, and that in the attempt to show that the intelligence of man is not generically different from that of the lower animals, the argument will succeed or fail by the way in which it disposes of this, the fundamental question in all philosophical speculation. The opening words of the preface to his *Logos* boldly declare that in Noiré's opinion the question he was approaching was second to none in importance. "The whole question concerning man," he says, "and his relation to the rest of the world, is bound up with his superior knowledge or Reason; and this Reason is wholly a question of those general or abstract ideas which are man's peculiar property. The investigation of the nature, origin and destiny of man will always defeat its purpose, if it does not start from this question, and keep it constantly in view as its last and greatest problem."

The thorough-going evolutionist, — of the type of Mr. Herbert Spencer, for instance, — is ready with his answer. Concepts or general ideas, he will declare, are nothing but generalizations or abstractions from our individual experience, or from the inherited experience of former generations; and there is no faculty of the human mind which cannot be traced to some metamorphosis of the impressions received by the senses. To this the idealist philosopher may reply that no man would ever have received a single impression without the co-operation of a faculty not derivable from the excitation of the senses which external objects produce; for whatever may be the case

with brutes—and it may be said again that all analogies from them are dangerous—man at least requires some faculty essentially different from sensation to make experience possible. Here, then, is the issue between Philosophy, in the old and true use of the word, and those modern disciples of science who claim a clear insight into difficulties the solution of which philosophers have hitherto found impossible.

Reason—the distinguishing faculty of man—may perhaps be defined as the power of conceptual thought, in other words, the power of seeing the Universal in the Particular. The strongest evidence that the lower animals are unable to reason (in this sense of the word) is supplied by the results of an inquiry which is more and more making good its claim to take part in the discussion of the deepest questions of human knowledge. Philology had for a long time the reputation of being an exceedingly dry study for any one who was not specially engaged in its researches; for if any study at all is to be made interesting to the world at large, its results must be shown to affect the current of our opinions, so that he who runs may read them for himself. And until it was made clear that Language is intimately bound up with our notions of Philosophy and Religion, Philology was for the cultured masses *vox et præterea nihil*. The main discovery which this science has made is that the four or five hundred roots from which by far the greatest part of language has been built up, express not mere imitative or interjectional cries, as was at one time widely held amongst philosophers, still less the names arbitrarily given to things, but certain human activities such as digging, spinning, pounding, etc. These roots formed, as has been said, the *residua* in the philological crucible. They were the '*mœnia mundi*' of the science, beyond which it could not go. Any explanation that might be given as regards their position in the development of human thought was work for the philosopher.* Further, these roots were expressive of general ideas, never of particular ones; although it must have been in relation to some particular idea that the root first found utterance. For it is a commonplace of philosophy that the particular can never be known. Our senses tell us that particular (single) things exist, but it is our own reason alone which tells us that they are particulars, that they are really single things; that is to say, sees them as such, as particular only because they partake in the general idea. Now the general is not prior to the particular, nor the particular to the general; but the general issues in the particular, just as knowledge or reason issues in sensible experience. If the roots are expressive of general ideas and find their utterance in particular ones, have we any sign of this process?

* Max Müller, *Lectures on the Science of Language*. Vol. I. Lecture 9.

Has Reason any distinct characteristic by which its possessor may be known? Is there anything which marks off by a line that cannot be overstepped the rational from the irrational being?

Yes, answered Noiré, the Rubicon is language; and if the earliest forms of language represent general ideas, and if it is reason alone which is cognisant of general ideas, language seems to be a mark of reason, and the absence of the one may be allowed to denote the absence of the other.

If, then, language is expressive in the main of general ideas, what follows? Monsieur Jourdain was surprised to find that he had been talking prose all his life without knowing it. The ordinary mortal will express a like astonishment when he discovers that his daily conversation is made up almost wholly of general ideas or concepts. And yet, if he listens to what philologists and philosophers tell him he will see that it is so; for no other explanation of language, in the Greek sense as the outer side of reason, is possible.

One other conclusion may be drawn. Philology is the Science of words, and Philosophy is the Science of Concepts. Philosophy begins where Philology leaves off. Knowledge is effected by the co-operation of the mind with the excitation of the senses, and language is also effected by the same means, in other words, the junction of reason with particular sensations.

It was characteristic of Noiré to introduce his own investigations with a lengthy notice of the treatment which the question had received from previous philosophers, so that if possible, a clear line of development might be shown to connect their speculations with his own. It may be convenient, therefore, to summarize this historical account in brief outline, and at the same time to present Noiré's view, in his own words, of the merits or shortcomings of his predecessors.

Among the Greek philosophers disputes arose as to whether language was a natural or an arbitrary product, but as Noiré pointed out, the objective character of human knowledge was never questioned by them; and Plato and Aristotle, seeing there could be no knowledge of the particular, were forced to posit some Idea or Form as the true nature of every particular. The main contribution of Mediaeval Philosophy to the question lay in the important position that was taken up by Abelard in regard to the nature of language. This great thinker, who may rightly be named the Father of Conceptualism, vindicated for the concept a position which it has ever since held. Words are not the names of things, but of concepts; and the concept expresses not the essential or true nature of the thing, but only what we are able to think of it. But of the origin of concepts or of speech no

other explanation was given than the mythological one, that they were the immediate gift of God. The mist of metaphysical theory in which the mediæval age was enveloped melted away to a great extent under the powerful light of Bacon's teaching, and the system which was to seek the answer to the great questions of the world in a patient investigation of the world itself as presented to our senses, passed a century later into the Empiricism of Locke. The mind is a *tabula rasa*; our general ideas are all derived from simple ones through abstraction. This abstraction he designates thought, and affirms it to be the dividing line between man and brute. And while Professor Noiré gave Locke the utmost credit for asserting the inner connection between language and thought, and for pointing out that general ideas or concepts, which are the mental equivalents of words, form the fundamental elements of thought, he has some effective criticism of Locke's method, which, even after all that has been done and undone in philosophy since the *Essay on the Human Understanding* was published, cannot be described as superfluous.

"Every deep thinker will immediately see that this explanation of Locke's is unsatisfactory, since a dark and unexplained something remains; and this forms a mystical and not a rational foundation. I shall here briefly indicate the chief contradictions and weak points of his explanation. (1) It is quite inadmissible to talk of particular and individual *ideas*: for generality constitutes the essence of an idea. Sensible impressions and experiences, which to a certain extent may be predicated of brutes, are essentially quite different from ideas or concepts which are the peculiar property of man. The confusion is chiefly owing to the fact that the persons whom the child first learns to know are already possessed of names, and the poverty of the English language which has to use the word 'idea' both for concepts and sensible presentations.* (2) There is something especially unsatisfactory and contradictory in putting complex ideas first, through the falling away and abstraction of which general ideas are to arise. A complex idea involves the prior existence in consciousness of its elements, which are in this case simple and more general ideas. To do this is to put the more difficult mental operation first, and derive the easier from it; which is a fundamental *petitio principii*, since the formation of ideas or concepts, which is what we have to explain, is already pre-supposed. (3) Though Locke was right in maintaining that ideas are not innate, but can only be evolved from experience as opportunity offers; his

*The Germans are fond of talking of the poverty of the English language. It must be confessed that criticism of this sort is invited by the clumsy expedient adopted in a recent translation of a German philosophical work, in which a distinction of small and capital letters served to denote totally different meanings of the same word.

greatest error lay in drawing the false conclusion that ideas are all derived directly from experience, so that, as he expresses himself (*Essay*, 3, 9, § 18), "simple ideas are each but one simple perception." Locke did not take account of the activity of thought, which is the most powerful element in the formation of ideas, and which Kant in the Critique of Pure Reason rightly opposes directly to passive or receptive sensation, going so far as to call ideas *functions* of the mind. Locke's opinion is rather that (*Essay*, 2, 22, § 2) the mind in respect of its simple ideas is wholly passive, and receives them all from the existence and operations of things, such as sensation or reflexion offers them, without being able to make any one idea: this experience shows us. It is only as regards complex ideas that Locke allows the mind activity: he even maintains that human laws, ordinances, inventions, etc., must have been present in the mind as complex ideas before the realities which correspond to them could have existed."

"However near to each other object and idea stand in Locke's philosophy, a measureless gulf is ever fixed between them; since he cannot explain their genetic connection: to the question how can sensible impressions become general ideas he gives not the slightest answer: nor is he able to say how we obtain ideas of the so-called primary or real qualities of objects. Impressions are rather always special, never general, and lie in the subject, as he rightly says: but the real qualities can only lie in the object itself, and how are they to pass into our mind?"

Despite this criticism, Noiré was very grateful for Locke's clear recognition of words as the signs, not of things, but of general ideas, a position which brings the seventeenth century philosopher into direct contact with modern theory on the subject of language. From this he went on to indicate clearly the transition to Kant and the lines on which all future philosophizing must proceed.

"The object of philosophy is twofold: it must by criticism and analysis reduce all concepts to their ultimate elements, and do for the world of thought what chemistry does with so much success for that of matter. It must determine the relation of concepts to the real world, which is nothing more or less than to discover the origin of them. Here there were apparently two possibilities: to consider either the thinking subject by itself alone, or the object by itself alone, as what is most certain and immediate: mediæval philosophy took the first road and Locke the second, but both ended in failure. The third possibility was first revealed to the penetrating mind of Kant, who showed from the relation of subject to object how an object is realized for the thinking mind and proved that we possess a double source of knowledge in sensation and

a priori forms, through the working together of which experience and ideas arise. All philosophical speculation has to build on Kant's labors, and it is only in harmony with them that the great problem of the origin of general ideas can be solved."

(TO BE CONTINUED.)

OUR NEXT NEIGHBORS.*

BY FELIX L. OSWALD.

II.

ABOUT sixty years after the Conquest of Granada the clerical tribunal of Almería was apprised of the fact that a number of Moorish renegades had taken refuge in the fastnesses of the Alpuxaras Mountains, and that moreover a tribe of wholly unconverted heathens had managed to survive in the summit-regions of the highlands known as the Sierra de Gador.

Forty-six families of those obnoxious highlanders were actually captured and duly burnt, in spite of abundant testimony to the fact that they had formed an isolated community from immemorial times and had neither sought nor found an opportunity to acquaint themselves with the theological theories of their neighbors. A special delegation of detectives was commissioned by the Holy office to inquire into the circumstances that had so long enabled a community of pagans to elude the vigilance of the spiritual authorities.

A commission of a less sanguinary but equally inquisitive Inquisition may, in times to come, perform a pilgrimage to the uplands of the Mexican Sierras, which for centuries will continue to conceal remnants of actual believers in the Galilean doctrine of renunciation. Highlanders are proverbially averse to innovations, but the conservatism of the orthodox Tyrolean and Basques is far surpassed by that of the Mexican Sierra Indians, who add taciturn caution to stubbornness and continued to resist the pistol-armed apostles of Spain for a hundred years after the last skeptics of the lowlands had been bullied into conformity. Only thirty years ago the explorers of the Sierra de Zalisco came upon a tribe of aborigines who still practised the pagan rites of their ancestors by sacrificing birds and dried fruit at certain times of the year; and in 1883 Dr. Hammond, in a paper read before the American Neurological Association, described the still stranger creed of a community of the autochthones in the highlands of Western New Mexico. Their rites, which seem to resemble the mysteries of the old Egyptian Isis-worship, include the veneration of an hermaphrodite, or of an unmanned male of the human species, dressed as a woman and compelled to engage in feminine occupation. These *mujerados*, as the natives call them, are maintained at the expense of the tribe, and as the doctor informs us, are "im-

* Copyrighted under "American Argures."

portant persons in the religious ceremonies which are conducted very secretly in the spring."

If a superstition of that sort could survive from the time of the Aztecs, it is not impossible that in the thirtieth century of our chronological era, isolated communities of the same Sierras will continue to practice physical self-torture for the benefit of their souls, and attempt to conciliate the favor of heaven by the suppression of their natural instincts.

The lowlands, on the other hand, will soon be stimulated into industrial activity, and their climatic privileges will foster the development of large cities—"shining with the light of a borrowed culture," like the commercial centres of Italy and Hindostan, but withal enjoying prerogatives that will enable them to maintain a successful competition with the manufacturing towns of the North. On the markets of Tampico and Vera Cruz vegetable products, sufficient to support a family of five persons, for a day, can be bought for one real (twelve cents), and from the coast up to an elevation of 4,000 feet, fuel for the purposes of house warming can be dispensed with for eleven months in the year. Even in January, weeks of mild, sunny weather are nothing unusual; European sailors, in fact, consider winter the most agreeable season for a visit to the south-coast of Mexico, and south of the twentieth parallel there are perhaps not more than fifteen days in the year when the state of the weather would make a stove fire insure an improvement of thermal comfort. Warm clothing is equally dispensable and a rain-tight roof is the chief requisite of a comfortable dwelling-house. Higher up, on the central tablelands, frosts occasionally fringe the border of lakes and brooks with a thin trimming of ice; but the summers make amends by greater dryness, and mere frame-sheds with a chimney of adobe-bricks shelter thousands of fairly comfortable families. In the second year of the French occupation, the old convent of San Francisco in Puebla was turned into a Government arsenal, where thousands of natives, both men and women, were employed in the manufacture of cartridges, percussion-caps and uniforms. The wages were rather scant, but the regularity of the pay-days made the establishment so popular that the massive old building was soon surrounded by scores of improvised shanties—each with a little cooking-stove and a canvas-roof, some even with door locks and squares of framed window-glass.

"Is it possible those cabins have been built from the savings of your day-laborers?" I asked an Austrian officer in charge of the arsenal.

"Yes, they save from fifty to eighty per cent of all we pay them," said he, "and I do not doubt that they would work for much less though some of them get only three reals a day. But then they have no 'wants'

hardly, in the civilized sense of the word. A shilling for an occasional new hood with trimmings or two shillings for a broad brimmed hat, say once in two years, is all they can be said to spend for articles of anything like luxury. Most of our *Chinacos* use neither tea nor coffee, our regulations prevent them from smoking, they eat little meat, never touch wine and beer, read no books, take no newspapers, wear no shoes, dispense with carpets and pictures and cultivate music only by proxy—by applauding a guitar-strumming youngster. Their very pets are made to board themselves, for I have known them to keep parrots that make a living by hopping about the street in quest of garbage-piles. One of our tailors has five little children that keep his wife at home, and he supports them all on his individual earnings of four reals a day and I have reason to believe that he saves money besides."

The employers of such laborers will before long compete with the most economical factory-managers of Yankeeland. Climate, domestic habits, and the unparalleled abundance of cheap food will turn the scales against Anglo-American constructiveness, and the addition of railways will develop Mexican Lyons' and Barcelonas. The experience of the Anglicized cities of tropical Hindostan may, however, repeat itself in the land of our next neighbors: Industrial competition will introduce long working-hours, stuffy factories and other things unsuited to the latitude of Vera Cruz, and the neglect of sanitary precautions will avenge itself in the outbreak of virulent epidemics. At least a dozen times in the history of the Straits Settlements, plagues of that sort have swept the cabin-suburbs of Singapore, and it is perhaps more than prejudice that the Chinese ascribe the increase of mortality in Canton and other southern seaports to the innovations of the British intruders.

Incidentally complications of that kind may benefit the cause of hygiene, by furnishing a test-case for establishing the value of a remedial agent that has been unaccountably neglected in the southern states of our own republic, viz., the effect of artificial refrigeration. The humanitarians of future generations will find it difficult to realize the fact, that the same nations that invented half a thousand different stoves, found no time for the construction of half a dozen efficient cooling-machines and seemed to consider it a mere waste of time to mitigate the fearful midsummer-misery of the laboring classes. In Mexico the excess of that martyrdom may compel its abolishment; and there is little doubt that the manufacture of ice and of various contrivances for the generation of cool air, will yet come to form quite as important branches of industry as coal-mining and the manufacture of stoves.

The gradual exhaustion of coal and wood in the

countries of the northern temperate zone will aid in stimulating the industrial colonization of the summer-land-regions, where Nature dispenses our species from one of the three chief vicissitudes of the struggle for existence: Hunger, frost and rain-storms. As in Hindostan, the advantages thus offered to the employers of cheap labor will perhaps be abused with long impunity. Tropical America, with all its political revolutions is not a land of pariah insurrections. Nine out of ten times the revolts against the government of the Spanish creoles originate with their own congeners, and the poor aborigines are made the tools of an ambitious intriguer in quarrels not of their own seeking. "It is an undoubted fact," says a historian of British India, "that the annals of the Hindoos furnish no instance of their having turned upon their rulers, no war of classes, no popular insurrection, not even a great popular conspiracy. All changes have come from above, none from below. There have been in abundance wars of kings and wars of dynasties. There have been revolutions in the government, revolutions in the palace and on the throne, but no revolutions among the people."

In Mexico the terrible oppression of the Spanish taskmasters never provoked a serious servile insurrection; the leaders of rival political parties quarreled among themselves, but the *peons* remained passive, and the introduction of republican forms of government has changed but little in that respect. The *Indios mansos*—the "tame Indians," as the creoles have fitly called them, are still the Hindoos of the New World, and in centuries of fierce revolts against the authority of an Anglo-American Captain General, the descendants of the Mexican *peons* may continue to labor contently for Anglo-American factory barons at a rate of remuneration representing the equivalent of three frugal week-day meals, with a chance for a mess of pottage on Sunday.

[TO BE CONTINUED.]

KANT ON EVOLUTION.

IN CRITICISM OF MR. HERBERT SPENCER'S PRESENTATION OF KANTISM.*

It is very strange that Mr. Herbert Spencer will again and again attack the philosophy and ethics of Kant for views which Kant never held. It is possible that there are disciples of Kant who deny the theory of evolution. Yet it is certain that Kant himself is not guilty of this mistake. Thinkers who reject the theory of evolution are in this respect as little entitled to call themselves disciples of Kant as, for instance, the Sadducees were to call themselves followers of Christ. Kantian philosophy was foremost in the

recognition of the need of evolution, and that at a time when public interest was not as yet centred upon it.

Mr. Spencer's merits in the propagation of the theory of evolution are undeniable, and he deserves our warmest respect and thanks for the indefatigable zeal he has shown in the performance of this great work, for the labors he has undergone and the sacrifices he has made for it. Yet recognizing all that Mr. Spencer has done, we should not be blind to the fact that Kant's conception of evolution is even at the present day more in conformity with the facts of natural science than Mr. Spencer's philosophy, although the latter commonly goes by the name of the philosophy of evolution.

It is painful to note that in many places where Mr. Spencer refers to Kant's philosophy, he does it slightly, as though Kant were one of the most irrational of thinkers. Kant's reasoning is denounced as "abnormal" and "vicious." I find such phrases as, "It is a vice of Kant's philosophy . . .," "If Kant had known more of Man than he did . . .," etc. Mr. Spencer characterizes Kant's method as follows:

"Instead of setting out with a proposition of which the negative is inconceivable, it sets out with a proposition of which the affirmation is inconceivable, and proceeds to draw conclusions therefrom."

These attacks of Mr. Spencer on Kant are not justifiable. Kant is not guilty of the faults for which he is arraigned by Mr. Spencer.

It is, however, fair to state that these misunderstandings appear excusable if the difficulties are borne in mind with which the English student of Kant is confronted. First, Kant cannot be understood without taking into consideration the historical development of his philosophy, and, secondly, most translations of the fundamental terms, he employs, are so misleading that errors can scarcely be avoided.

Kant's philosophy is by no means a perfected system; it rather represents (as perhaps necessarily all philosophies do) the development of a thinker's mind. The "Critique of Pure Reason" especially shows traces of the state of Kant's mind at different periods, and thus it is that we discover passages which closely considered will be found to be contradictory. When reading this remarkable work we feel like travelers walking over the petrified relics of a powerful eruption. There are strata of ideas of the oldest formation close to the thoughts of a recent date. There are also vestiges of intermediate phases. Here they stand in the petrification of printed words, peacefully side by side, as memorials of a great revolution in the development of human thought. It is this state of things which more than any thing else makes of Kant's writings such difficult reading. At the same time it is ob-

* See Mr. Spencer's Article in *Mind*, No. LIX, p. 313.

vious that we cannot simply take the results of Kant's philosophy; we must follow him in the paths by which he arrived at any given proposition.

There is no philosopher that has been worse misinterpreted than Kant; and the English interpreters of Kant have succeeded in mutilating his best thoughts so that this hero of progress appears as a stronghold of antiquated views. Mistranslations or misconceptions of his terms are to a great extent the cause of this singular fate. As an instance we mention the errors that attach to Kant's term *Anschauung*. *Anschauung* is the present object of our senses; it is the impression a man has from looking at a thing and might have been translated by "perception" or perhaps "sensation." It is usually translated by "intuition." The *Anschauung* of objects comprises the data of knowledge, and they are previous to our reflection upon them. An intuition in the sense of the English Intuitionists is defined as "a presentation which can be given previously to all thought," yet this presentation is supposed to be a kind of revelation, a knowledge that comes to us without our contemplation, a cognition the character of which is immediate as well as mysterious; in short something that is supernatural.

How different is Kant's philosophy, for instance, if his position with reference to time and space is mistaken! "Time and Space are our *Anschauung*," Kant says. But his English translators declare: "Kant maintained that space and time are intuitions." What a difference it makes if intuition is interpreted in the sense applied to it by the English Intuitionist School instead of its being taken in the original meaning of the word *Anschauung*.

* * *

Any one who knows Kant through Mr. Spencer's representations only, must look upon him as having the most perverse mind that could possibly exist; and yet it is Kant from whom Spencer has indirectly derived the most characteristic feature of his philosophy. What is Mr. Spencer's agnosticism but a popularization of Kant's view that things in themselves are unknowable?

We conclude from the animosity which Mr. Spencer shows toward Kant, that he does not know how much in this respect he agrees with Kant, how much he has unconsciously imbibed from the *Zeitgeist* which in part was formed under the influence of this huge error of the great philosopher.

I feel confident that any clear thinker who studies Kant and arrives along with him at the "thing in itself" will soon free himself from this error of Kantian thought. Kant himself suggests to us the method by which we are to find the way out of agnosticism. As a proof I quote the views of two independent

thinkers; both influenced by Kant's criticism but neither a blind follower. Professor Mach says:

"I have always felt it as a special good fortune, that early in my life, at about the age of fifteen, I happened to find in the library of my father Kant's *Prolegomena to any future Metaphysics*. The book made at that time a powerful, ineffaceable impression upon me, that I never afterwards experienced to the same degree in any of my philosophical reading. Some two or three years later I suddenly discovered the superfluous rôle that 'the thing in itself' plays."

And Schiller guided by similar considerations says in one of his Xenions:

"Since Metaphysics, of late, without heirs to her fathers
was gathered:
"Under the hammer are now 'things in themselves'
to be sold."

The latest attack of Mr. Spencer upon Kantism is in the article "Our Space-Consciousness," in *Mind*, written in reply to Professor Watson. Mr. Spencer there repeats his misconception of Kantism, so that I feel urged to utter a few words of protest against his gross misrepresentation of Kant's views. I shall confine myself mainly to quotations from Kant's works—and the passages quoted will speak for themselves. Should there indeed be any disciples of Kant who are, as Mr. Spencer says, "profoundly averse to that evolutionary view which contemplates mind as having had a genesis conforming to laws like those conformed to by the genesis of the body," these quotations will suffice to prove that they have misconstrued the views of their master. Philosophers hostile to the theory of evolution would better select another patron for their ideas. Kant is too radical a mind to protect those men who in the domains of thought give the signal for retreat.

Mr. Spencer adopted the evolution theory as it was presented by Von Baer, who explains "*Entwicklung*" as a progress from the homogeneous to the heterogeneous.

Baer's "Developmental History of Animals" was published in 1828. Mr. Spencer adopted the theory in 1854. But the history of the theory of evolution is older than Von Baer's book. Professor Baer concludes his work with a few corollaries among which near the end we find the following passage:

"If we survey the contents of the whole Scholia, there follows from them a general result. We found that the effect of generation continues to advance from a part to a whole [Schol. 2.]; that in development, self-dependence increases in correspondence with its environment [Schol. 2.], as well as the determinateness of its structure [Schol. 1.]; that in the internal development special parts shape themselves forth from the more general, and their differentiation increases [Schol. 3.]; that the individual, as the possessor of a fixed organic form, changes by degrees from more general forms into more special [Schol. 5].

"The general result of our inquiry and consideration can now well be declared as follows:

"That the developmental history of the individual is the history of increasing individuality in every relation; that is, Individualization."

"This general conclusion is, indeed, so plain, that it needs no proof from observation, but seems evident *a priori*. But we believe that this evidentness is merely the stamp of truth, and therefore is its guarantee. Had the history of development from the outset been perceived as just expressed, it could and should have been inferred, that the individual of a determinate animal type attains to this by changing from a general into a special form. But experience teaches everywhere, that deductions are always safer if their results are discovered beforehand by observation. Mankind would have obtained a still greater intellectual possession than it really has, this had been otherwise."

"But if this general conclusion has truth and contents, it is one *fundamental idea* which runs through all forms and degrees of animal development, and governs every single relation. It is the same idea that collected in space the distributed particles into spheres and united them in solar systems; which caused the disintegrated dust on the surface of our metallic planet to grow up into living forms; but this idea is nothing else than life itself, and the words and syllables in which it expresses itself, are the different forms of life."

These corollaries were not inserted by Baer because he intended to proclaim a new truth, but simply to excite a popular interest in a strictly scientific work, in order to extend the circle of its readers. Baer says in the preface:

"So much about the first part. In order to procure for the work readers and buyers, I have added a second part in which I make some general remarks under the title of Scholia and Corollaries. They are intended to be sketches of the confession of my scientific faith concerning the development of animals, as it was formed from observation of the chick and by other investigations."

* * *

The Encyclopædia Britannica says of Baer that he "prepared the way for Mr. Spencer's generalization of the law of organic evolution as the law of all evolution."*

Baer declares that individualization is "the one fundamental idea that goes through *all* the forms of cosmic and animal development." The generality of the law of evolution is clearer in the language employed by Baer, in the full context of the Scholia, than appears from the short statement of the Encyclopædia Britannica. Nevertheless it is clear enough in the quoted passage that Baer made a statement of universal application. How can such a universal statement be made more general?

We must add here that Mr. Spencer and his disciples overvalue the importance of generalization. It

is not the power of generalization that makes the philosopher and the scientist but the power of discrimination. The habit of generalizing whatever comes under our observation is very common among the uneducated and uncivilized, and almost nine tenths of human errors arise from unwarranted generalizations.

* * *

In Kant's time the interest in the theory of evolution was confined to a few minds. It is well known that Goethe was one of its most enthusiastic supporters.* In the middle of the Eighteenth Century there were three views proposed to explain the origin and the development of organized beings: (1) Occasionalism, (2) the theory of Evolution, and (3) the theory of Epigenesis. Occasionalism maintained that God created on each new occasion a new animal. The word evolution was used in a different sense from that in which it is now understood: Evolutionism, as maintained by Bonnet, Haller, and others, was the view that the sperma contained a very small specimen of the animal that was to grow from it. The hen's egg was supposed to contain an excessively minute but complete chicken. The theory of epigenesis, however, propounded in 1759 by Caspar Friedrich Wolff in his *Theoria Generationis*, explained development by additional growth, and it is this theory of epigenesis which later on, after the total defeat of the old evolutionism, was called (but improperly) the evolution theory. The word "evolution" has thus again admitted the erroneous idea of an unfolding.

In Kant's time the battle between the occasionalists, the evolutionists, and the adherents of the epigenesis theory was hot indeed; and Kant unquestionably gave preference to the epigenesis theory. The most important passage on the subject appears in his "Critique of Judgment." It is as follows:

"If now the teleological principle of the generation of organized beings be accepted, as it would be, we can account for their internally adapted form either by *Occasionalism* or by *Prestabilism*.† According to the first, the supreme world-cause would, in agreement with its idea, on the occasion of every coition directly give the proper organic form to the material thereby blended; according to the second, it would have implanted into the original products of its designing wisdom, merely the power by means of which an organic being produces its like and the species itself is constantly maintained and likewise the death of individuals is continually replaced by their own nature, which is operating at the same time for their destruction. If we assume Occasionalism for the production of organized beings, nature is thereby wholly discarded, and with it the use of reasoning in determining the possibility of such kinds of products; therefore, it cannot be supposed that this system is accepted by any one who has had to do with Philosophy."

"As to *Prestabilism*, it can proceed in a two-fold manner. Namely, it considers every organic being produced by its like either

* See Haeckel, "Goethe on Evolution," No. 131 of *The Open Court*.

† *Prestabilism*, that is, the theory that the phenomena of nature are the result of pre-established law.

* The passage in the Encyclopædia Britannica on Baer runs as follows: "In his *Entwicklungsgeschichte der Thiere*, p. 264, he distinctly tells us that the law of growing individuality is 'the fundamental thought which goes through all forms and degrees of animal development and all single relations. It is the same thought which collected in the cosmic space solar systems; the same which caused the weather-beaten dust on the surface of our metallic planet to spring forth living beings.' Von Baer thus prepared the way for Mr. Spencer's generalization of the law of organic evolution as 'the law of all evolution.'"

as the *educt* or as the *product* of the first. The system which considers generated beings as mere *educts* is called that of *individual preformation*, or also the *theory of Evolution*; that which makes generated beings *products* is named the system of *Epigenesis*. The latter can also be called a system of *generic preformation*, because the productive power of those generating was virtually preformed to agree with the internal adapted arrangements that fell to the lot of their race. The opposing theory to this view should be named that of *individual preformation*, or still better, the *theory of involution*."

"The defenders of the theory of Evolution, who exempt each individual from the formative power of nature, in order to derive the same directly from the hand of the Creator, would not dare to permit this to happen in accordance with the hypothesis of Occasionalism, so that coition would be a mere formality, a supreme national world-cause having decided to form every particular foetus by direct interference, and to resign to the mother only its development and nourishment. They declared themselves in favor of Preformation, as though it were not the same to make the required forms arise in a supernatural manner at the beginning of the world, as during its progress; and as if a great multitude of supernatural arrangements would not rather be dispensed with through occasional creation which were necessary in order that the embryo formed at the beginning of the world should, throughout the long period up to its development, not suffer from the destructive forces of nature, but endure and maintain itself intact; moreover an immensely greater number of such preformed beings would be made than ever would be developed, and with them as many creations be thus rendered unnecessary and purposeless. They still, however, resign at least something to nature, in order not to fall in with complete Hyperphysics, which can dispense with explanation from nature. They still held fast indeed, to their Hyperphysics; even finding in monsters (which it must be impossible to regard as designs of nature) cases of adaptation which call for admiration, although the only purpose of that adaptedness might be to make an anatomist take offence at it as a purposeless adaptedness, and have a sense of melancholy admiration. Yet they could not well fit the generation of hybrids into the system of preformation, but were obliged still further to endow the sperm of male creatures with a designedly acting power, whereas they had otherwise accorded it nothing except mechanical force to serve as the first means of nourishment of the embryo; yet this designedly acting force, in the case of the products of generation between two creatures of the same kind, they would grant to neither of them."

"If on the contrary the great advantage was not at once recognized which the theory of Epigenesis possessed over the former in view of the experimental foundation on which the proof of it rested; yet reason would be especially favorably predisposed from the outset for this mode of explanation, inasmuch as it regards nature—with reference to the things which originally can be conceived as possible only in accordance with the theory of causality and design, at least so far as propagation is concerned—as self-producing and not merely as developing, and thus with the least possible employment of the supernatural, leaves all that comes afterwards, from the very beginning on, to nature: without concerning itself with this original beginning, with regard to the explanation of which Physics in general miscarries, try with what chain of causes it may."

Kant recognizes neither the stability of species nor any fixed limits between them. And this one maxim alone suffices to prove that he was of the same opinion as the great biologist who wrote the "Origin of Species." Kant says (Ed. Hart. III. p. 444):

"*Non datur vacuum formarum*, that is, there are not different original and primitive species, which were, so to say, isolated and separated by an empty space from one another, but all the manifold species are only divisions of a single, chief, and general species; and from this principle results again this immediate inference; *datur continuum formarum*, that is, all differences of species border on each other, and allow no transition to one another by a leap, but only through very small degrees of difference, by which we can arrive at one from another; in one word, there are no species or sub-species which, according to reason, would be *next* each other in affinity, but intermediate species are always possible, whose difference from the first and second is less than their difference from one another."

In Kant's "Critique of Judgment" (§. 80) we find the following passage:

"The agreement of so many species of animals, with reference to a definite, common scheme, which appears not only to be at the foundation of their bony structure, but also of the arrangement of their other parts, in which, by abridgement of one and prolongation of another, by envelopment of this and unfolding of that, a wonderful simplicity of plan has been able to produce so great a diversity of species—this agreement casts a ray of hope, although a weak one, in the mind, that here, indeed, something might be accomplished with the principle of the mechanism of nature, without which in general there can be no physical science. This analogy of forms, so far as they appear, notwithstanding all their diversity, to be produced after the model of a common prototype, strengthens the conjecture of a real relationship between the same by generation from a common ancestral source, through the gradual approach of one animal species to another, from man, in whom the principle of design appears to be best proved, to the polyp, from this to the moss and lichen, and finally to the lowest stage of nature perceptible to us, to crude matter, from which and its forces, according to mechanical laws (like those which work in the production of crystals), the whole technic of nature (which is so incomprehensible to us in organized beings that we imagine another principle is necessitated for their explanation) appears to be derived."

"The Archaeologist of nature is now free to make that great family of beings (for such we must conceive it, if the uninterrupted relationship is to have a foundation) arise out of the extant vestiges of her oldest revolutions, following every mechanism known to him or which he can suppose."

Kant adds in a foot note:

"An hypothesis of such a kind can be named a daring venture of reason, and there may be few of the most sagacious naturalists, through whose minds it has not sometimes passed. For it is not absurd, as the *generatio equivoce*, by which is understood the production of an organized being through the mechanical action of crude unorganized matter. But it would still be *generatio univoca* in the common understanding of the word, in so far only as something organic was produced out of another organic body, although specifically distinguished from it; for instance, if certain aquatic animals by and by formed into amphibia, and from these after some generations into land animals. A priori this does not contradict the judgment of pure reason. Only experience shows no example thereof; according to it, rather, all generation which we know is *generatio homonyma* (not mere *univoca* in opposition to production out of unorganized material), that is, the bringing forth of a product homogeneous in organization, with the generator; and *generatio heteronyma*, so far as our actual experience of nature goes, is nowhere met with."

The treatise "Presumable Origin of Humanity," Kant sums up in the following sentence:

"From this representation of the earliest human history it results, that the departure of man from what, as the first abode of his kind, his judgment represented as Paradise, was no other than the transition of mere animal creatures out of barbarism into man, out of the leading-strings of instinct into the guidance of reason, in a word, out of the guardianship of nature into the state of freedom."

In his work "Upon the Different Races of Mankind," Kant discusses the origin of the species of man in a way which would do honor to a follower of Darwin. It is written in a spirit which recognizes the difference of conditions as the causes that produce different species. We select a few passages from this work.

In a foot note we read:

"Ordinarily we accept the terms natural science (*Naturgeschichte*) and natural history in one and the same sense. But it is evident that the knowledge of natural phenomena, as they *now are*, always leaves to be desired the knowledge of that which they *have been* before now, and through what succession of modifications they have passed in order to have arrived, in every respect, to their present state. *Natural History*, which at present we almost entirely lack, would teach us the changes that have affected the form of the earth, likewise, the changes in the creatures of the earth (plants and animals) that they have suffered by natural transformations and, arising therefrom, the departures from the prototype of the original species that they have experienced. It would probably trace a great number of apparently different varieties back to a species of one and the same kind, and would convert the present so intricate school-system of Natural Science into a natural system in conformity with reason."

We adduce another passage, no less remarkable in clearness, which proves that Kant had a very definite idea, not only of the gradual evolution of man, but also of the survival of the fittest:

"The cry which a child scarcely born utters, has not the tone of misery, but of irritation, and violent rage; not the result of pain, but of vexation about something; probably for the reason that it wishes to move itself and feels its incapacity, like a captive when freedom is taken from him. What purpose can nature have in providing that a child shall come with a loud cry into the world, which for it and the mother is, in the *rudimentary state*, full of danger? Since a wolf, a pig even, would in the absence of the mother, or through her feebleness owing to her delivery, be thus attracted to devour it. But no animal except man as he now is announces with noise its new-born existence; which in the wisdom of nature appears to be thus arranged *in order that the species shall be preserved*. We must also assume that in what was an early epoch of nature for this class of animals (namely in the period of barbarism) this outcry of the child at its birth did not exist; consequently only later on a second epoch appeared, after both parents had arrived at that degree of civilization which was required for home-life; yet without knowing how and by what interweaving causes nature arranges such a development. This remark leads us far; for example, to the thought whether after the same epoch, still a third did not follow accompanied by great natural revolutions, during which an Orang-outang or a Chimpanzee perfected the organs which serve for walking, for feeling objects, and for speech, and thus evolved the limb-structure of man; in which animals was contained an organ for the exercise

of the function of reason, which by social cultivation was gradually perfected and developed."

Kant's view concerning the origin of the biped man from quadruped animal ancestors is most unequivocally stated.

In a review of Dr. Moscati's Lecture upon the difference of structure in animals and in men, Kant says:

"Dr. Moscati proves that the upright walk of man is constrained and unnatural; that he is indeed so constructed that he may be able to maintain and move in this position, but that, although by needful and constant habit he formed himself thus, inconvenience and disease arise therefrom, which sufficiently prove, that he was misled by reason and imitation to deviate from the first animal arrangement. Man is not constructed internally different from other animals that go on all fours. When now he raises himself his intestines, particularly the embryo of pregnant individuals, come into a pendulous situation and a half reversed condition, which, if it often alternates with the lying position or that on all-fours, cannot precisely produce specially evil consequences, but, by constant continuance, causes deformities and numerous diseases. Thus, for example, the heart, because it is compelled to hang free, elongates the blood vessels to which it is attached, assumes an oblique position since it is supported by the diaphragm and slides with its end against the left side—a position wherein man, especially at full growth, differs from all other animals, and thereby receives an inevitable inclination to aneurism, palpitation, asthma, chest-dropsy, etc. etc. With the upright position of man the mesentery, pulled down by the weight of the intestines, sinks perpendicularly thereunder, is elongated and weakened, and prepared for numerous ruptures. In the mesenteric vein which has no valves, the blood moves slowly and with greater difficulty (it having to ascend against the course of gravity) than would happen with the horizontal position of the trunk. . . ."

"We could add considerably to the reasons just adduced to show that our animal nature is really quadrupedal. Among all four-footed animals there is not a single one that could not swim if it accidentally fell into the water. Man alone drowns, except in cases where he has learned to swim. The reason is because he has laid aside the habit of going on all-fours; for it is by this motion that he would keep himself up in the water without the exercise of any art, and by which all four-footed creatures, who otherwise shun the water, swim. . . ."

"It will be seen, accordingly, that the first care of nature was that man should be preserved as animal for *himself and his species*, and for that end the position best adapted to his internal structure, to the lay of the fetus, and to his preservation in danger, was the quadrupedal position; we see, moreover, that a germ of reason is placed in him, whereby, after the development of the same, he is destined for *social intercourse*, and by the aid of which he assumes the position which is in every case the most fitted for this, namely, the bipedal position,—thus gaining upon the one hand infinite advantages over animals, but also being obliged to put up with many inconveniences that result from his holding his head so proudly above his old companions."

The history of Mr. Spencer's philosophical development shows that the first idea which took possession of his mind and formed the centre of crystallization for all his later views was M. Condorcet's optimism. Condorcet believed in progress; he was convinced that in spite of all the tribulations and anxieties of the present, man would at last arrive at a state

of perfection. He saw a millenium in his prophetic mind, which alas!—if the law of evolution be true—can never be realized. Condorcet died a martyr to his ideals. He poisoned himself in 1799 to escape death by the guillotine.

The influence of Condorcet's work *Esquisse d'un tableau historique des progrès de l'esprit humain* is traceable not only in Mr. Spencer's first book "Social Statics," published in 1850, but in all his later writings. How can a true evolutionist believe in the Utopia of a state of perfect adaptation? Does not each progress demand new adaptations? Take as an instance the change from walking on four feet to an upright gait. Did not this progress itself involve man in new difficulties, to which he had to adapt himself? Let a labor-saving machine be invented, how many laborers lose their work and how many others are in demand! The transition from one state to the other is not easy, and as soon as it is perfected new wants have arisen which inexorably drive humanity onward on the infinite path of progress which can never be limited by any state of perfection. There is a constant readjustment necessary, and if we really could reach a state of perfect adaptation human life would drop into the unconsciousness of mere reflex motions.

Any one who understands the principle of evolution and its universal applicability, will recognize that there can be no standstill in the world, no state of perfect adaptation. Our solar system has evolved, as Kant explained in his "General Cosmogony and Theory of the Heavens," out of a nebula, and is going to dissolve again into a nebular state. So our social development consists in a constant realization of ideals. We may think that if we but attain our next and dearest ideal, humanity will be satisfied forever. But as soon as we have realized that ideal, we quickly get accustomed to its benefits. It becomes a matter of course and another ideal higher still than that just realized appears before our mental gaze.

Herder, in his "Ideas for a Philosophy of the History of Mankind," not unlike Mr. Spencer, was also under the spell of the Utopian ideal, that humanity will reach at last a state of perfect happiness. Kant, in his review of Herder's book, discusses the relativity of happiness and its insufficiency as a final aim of life. He says:

"First of all the happiness of an animal, then that of a child and of a youth, and lastly that of man! In all epochs of human history, as well as among all classes and conditions of the same epoch, that happiness has obtained which was in exact conformity with the individual's ideas and the degree of his habitation to the conditions amid which he was born and raised. Indeed, it is not even possible to form a comparison of the degree of happiness nor to give precedence to one class of men or to one generation over another. . . . If this shadow-picture of happiness . . . were

the actual aim of Providence, every man would have the measure of his own happiness within him. . . . Does the author (Herder) think perhaps that, if the happy inhabitants of Otaheite had never been visited by more civilized peoples and were ordained to live in peaceful indolence for thousands of years to come—that we could give a satisfactory answer to the question why they should exist at all, and whether it would not have been just as well that this island should be occupied by happy sheep and cattle as that it should be inhabited by man who are happy only through pure enjoyment?"

"It involves no contradiction to say that no individual member of all the offspring of the human race, but that only the species, fully attains its mission (Bestimmung). The mathematician may explain the matter in his way. The philosopher would say: the mission of the human race as a whole is *unceasing progress*, and the perfection (Vollendung) of this mission is a mere idea (although in every aspect a very useful one) of the aim towards which, in conformity with the design of providence, we are to direct our endeavors."

It is indubitable that Kant's views of evolution agree better with the present state of scientific investigation, than does Mr. Spencer's philosophy, which has never been freed from Condorcet's ingenuous optimism. The assumption of a final state of perfection by absolute adaptation is irreconcilable with the idea of unceasing progress, which must be true, if evolution is a universal law of nature.

P. C.

CORRESPONDENCE.

AWAY WITH OGRES AND FAIRIES!

To the Editor of The Open Court:—

The writer of the article thus entitled (p. 2471) must himself have been one of the boys who "at fifteen smile to think they ever were so silly as to consider the story of Cinderella to be 'truly true.'" Fortunately, Mr. Rood to the contrary, such boys, or girls either, are rare. At that age young people still retain, if they have healthy minds, their love for the romances of their childhood, and they have begun to see that there is a truth embalmed in all such stories, however much it may be overlaid by fictitious incidents. The assertion that as civilization advances fewer persons of mature years care for what are known as folk-tales, is exactly contrary to the truth. It is only during the existing generation that their true significance has been ascertained, and societies have been formed in every civilized country to add to our knowledge of the apparently childish stories of the past. So far from its being desirable that they should be abolished, they should be retained and utilized, as they well might be, for the purposes of education.

Surely it would be better to continue the enjoyment which the infant mind derives from its innocent romances, and at a proper age explain their true sense, than to get rid of them altogether. If the truth, or even the probability, of the details of a story is to be regarded as the proper test of fitness for reading, what a large proportion of the "fiction" which forms almost the sole reading of many grown up men, no less than women, would have to be tabooed! The sensational literature of this description does much mischief, and it can seldom be made useful for a moral purpose. In many "fairy stories," quite apart from the views of nature they express, which however much distorted are valuable as revealing the ideas entertained by the fathers of our race, a distinct moral is conveyed. The moral is sometimes not very definite, and in many cases expresses merely the general truth that good will ultimately triumph over evil, or love over hate, but this

is the highest of all teachings, and embraces all moral truths. In fact, one of the chief objects of many of the folk-tales which have been handed down to us was the teaching of morality; just as the Buddhist *Birth-Stories* were intended to show the gradual progress of the Buddha towards moral perfection, and thus to teach his followers the principles by which they should be guided in the conduct of life.

It is unfortunately true that the tendency of the American people is too practical, and yet from one point of view they are not practical enough. The latter feature is shown in their disregard, not merely for the past, but for the present except so far as it affects the immediate necessities of the individual or the community. It has been said, and with truth, that many of the social and political questions which from time to time agitate the public mind in this country, have been long since worked out by other peoples, of whose experience there is here profound ignorance. Nevertheless the spirit of enquiry is awakened, and at this very time it is being directed towards a comparison of the folk-stories of the negro-race with those of the white race, a work which will show in what particulars their moral and other ideas agree or differ, and incidentally how far the negro is capable of receiving further civilization. If such stories had been treated a generation ago in the way proposed by Mr. Rood, in European countries as well as in America—for the same rule must apply to both—a vast mass of information as to the mental condition of our forefathers, and therefore, as to the origin of many of our own ideas, would have been lost to the world.

The retention of fairy tales does not necessitate, however, the exclusion of other stories. Young children have the greatest avidity for tales, and child-stories which have been written in recent years have delighted many thousands of youthful readers or listeners. To be acceptable, however, they must be full of incident, which can easily be made to convey a moral lesson. Stories relating to natural phenomena, of the character referred to by Mr. Rood, could hardly be made sufficiently attractive to the child-mind, but, even if they could be, they should be reserved for the time of instruction, and not for hours of mental recreation. From personal observation and experience, I should judge that the reading of "fairy tales," or even stories of pirates and bandits, has not such a deleterious effect as is pictured by Mr. Rood. There is some truth in what he says as to the "Santa Claus" delusion. It is certainly carrying matters too far to teach children that an old man actually brings them presents on Christmas Eve. But to be perfectly consistent, they should be told that Christmas day is the anniversary, not of the birth of Christ, but of the awakening to new life of animated nature. If any "personality" is connected with Christmas it is that of the Solar deity, the giver of all good gifts to men, with whose attributes the founder of Christianity has been clothed.

C. STANLAND WAKE.

BOOK REVIEWS.

MANUAL OF PSYCHOMETRY: THE DAWN OF A NEW CIVILIZATION. Third Edition. By Joseph Rodes Buchanan, M. D. Published by the author—6 James Street, Boston.

The venerable author of this Manual states that it is forty-two years since the discovery and public demonstration of the science and art of Psychometry, and he adds that it is widely known and is an honourable and useful profession. Psychometry is Dr. Buchanan's discovery and its name signifies *soul-measuring*. As a science and philosophy, it is declared to show "the nature, the scope, and the *modus operandi* of the divine powers in man and the anatomical mechanism through which they are manifested," while as an art "it shows the method of utilizing these psychic faculties in the investigation of character, disease, physiology, biography, history, paleontology, philosophy, anthropology, medicine, geology, astronomy, theology, and supernal life and des-

tiny." If all that Dr. Buchanan claims for psychometry is true, the science of "soul-measuring" is undoubtedly the greatest discovery of the age. It is said to depend on a faculty of "intuition" which resides in the nervous substance located in the fore-part of the brain, and is specially connected with the interior portion of the frontal lobe and thence with the organ of sensibility in the interior part of the middle lobe. The agent employed to excite intuition is the "aura" of the old mesmerists, whose ideas with those of the phrenologists, somewhat modified, are reproduced by Dr. Buchanan, with the addition of what he terms "prophetic intuition." Undoubtedly he mentions various curious facts some of which agree with the phenomena of hypnotic somnambulism, but if all the incidents related in his book were accepted as true, the claims made by "psychometry" could not be maintained. The statement that "the mind endowed with psychometric intuition becomes independent of history, of exegesis, and criticism" may express a conditional truth, but it is sufficient to prevent the acceptance of Dr. Buchanan's system by any scientific mind.

THE BIBLE—WHENCE AND WHAT? By Richard B. Westbrook, D.D., LL.B. 3d edition. Philadelphia: I. B. Lippincott Company. 1890.

THE BIBLE AND EVOLUTION. By Arthur B. Moss. London: Watts & Co.

A book of the character of "The Bible—Whence and What" cannot reach a third edition without possessing features which justify its republication. Its author does not claim for it *originality*, and he modestly disclaims credit for any "particularly fine passages, if such be found"; as he may have unconsciously reproduced the precise words and expression, of others. He has consulted a great many works and his book is a compilation of conclusions derived from them, and arranged in such a form that it possesses a practical value which is often wanting to books of much greater pretension. The object which Dr. Westbrook has throughout is to show that, while the Bible is valuable as *literature*, as *dogma* it is worse than useless. To prove this conclusion he describes the unsatisfactory nature of the material on which both the authorized and the revised versions of the New Testament are based, the doubtful origin of the Jewish and Christian canons of sacred scripture, and the unworthy character of its custodians. Dr. Westbrook refers to the fact that the miracles claimed for early Christianity had little influence over the minds of the people, and to the speciousness of the arguments founded on "prophecy." He adds that the writers of the Books of the Bible never claim divine inspiration for themselves, a statement which is true taken generally, but which requires certain exceptions. The prophets undoubtedly claimed to deliver the messages of Jahveh, and St. Paul affirms that he received his Gospel by revelation, or "unveiling," of Jesus Christ. Dr. Westbrook well shows, however, that on moral grounds alone, we are justified in denying the claim, that the Bible is a supernatural, infallible revelation, a conclusion which is confirmed by the many inconsistencies it contains.

Whence then was the Bible teaching derived? Dr. Westbrook answers this question by reference to the greater antiquity of other religious books, especially the Hindu Vedas, which contain ideas similar to those of the early Hebrew scriptures; and to the existence of religious orders, such as the Essenes, Therapeutae, Nazarenes, etc., whose doctrines and worship were appropriated by the early Christians. The main articles of Christian belief he finds in all ancient religions, and he adopts the theory of the Roman Catholic author of *The Key of the Credo*, that this key is supplied by the worship of the Sun, whose passage through the Zodiacal Signs formed the basis for much of the mythology of all religions. That this has largely affected even Christianity cannot be doubted. Dr. Westbrook maintains further that the teachings of the Bible

were "mainly derived from, and were given character and color by, the religious writings of other peoples who preceded them in order of time." This conclusion also can be well established. It would be a mistake to suppose that the book, under review, is an attack upon religion. It is intended not to weaken the foundations of genuine religion, but to enlarge and strengthen them, and the whole tone of Dr. Westbrook's work, which displays the ripe conclusions of a judicial mind, such as we should expect from the portrait of the author which forms the frontispiece—shows that he has considered his subject in that spirit. A few erroneous statements have crept into it, such as that Sanskrit is "mainly the source of all ancient and modern languages" (p. 91), and that Zoroaster lived from four thousand years to six thousand years before Christ (p. 166), but it is surprising perhaps that the work contains so few of such errors.

The second book under notice, "The Bible and Evolution," goes over much the same ground as the foregoing, but its object is entirely different. Mr. Moss endeavors to prove that "so far from the Bible containing a true record of the events it professes to narrate, a careful consideration of its contents shows that it is inaccurate in its science, false in its history, and bad in its morality." The human origin of the Bible has been so often stated and "demonstrated," that we now look for something more than destructive criticism. We look for something constructive, especially in a work which treats of "The Bible and Evolution," where, however, we find nothing but "matter for reflection," and the "drift of modern thought." Mr. Moss's book reads like a series of lectures, and it will do for popular reading, but it is doubtful, whether, if the attack on Christianity it contains has any effect, it will not do more harm than good, in the absence of any attempt to settle the principles of a true moral system. It is better to teach the young to do good in hope of reward, and to avoid doing evil from fear of consequences, than not to teach them at all the necessity of acting according to moral law. 12.

The Canadian Methodist Quarterly does credit to the religious community to which it belongs. It is thoughtful in tone and liberal in its views. This is evidenced in the July number by its treatment of Martineau's *Seat of Authority in Religion*, and its article on *Comparative Religion*. An excellent statement of the case on behalf of Christian Socialism is given by the Rev. W. D. P. Bliss, who condemns Mr. Bellamy's idea of an "industrial army," and maintains, that while the true conception of the social state is organic, socialism is not itself a system, but the application of organized brotherhood in any system.

Scribner's Magazine for September contains as usual much readable, well illustrated matter. "Nature and Man in America" is a first paper on this subject by Mr. N. S. Shaler. If the subsequent ones are equally good they will form a valuable contribution to the question of the future of American life. Mr. Thomas Stevens gives a description of the African river and lake systems the importance of which for the development of the resources of that great continent can hardly be overrated. The secret of Africa's isolation from the benefit of civilization is said by Mr. Stevens to be found in the cataracts of the big rivers, and in a lesser degree in the inhospitableness of the climate. The latter cannot well be changed, but the introduction of railways will do much to remove the other source of isolation and will flood with light the erstwhile dark continent.

The Atlantic Monthly, Boston: Houghton, Mifflin & Co. The September number of this monthly is chiefly historical. In the opening article on "The Perils of Historical Narrative," Mr. Justin Winsor points out the various means by which the elements and concomitants of historical narrative become perverted and modified, and that they are "subject to revision through the

development and readjustment of material in the hands of succeeding writers." Mr. J. F. Jameson traces the progress of Modern European Historiography, for the purpose of showing that "the development is marked by a succession of phases, each of which even if at first confined to one country is rapidly propagated, and soon comes to be common to all Europe." The "Over the Teacups" series of papers is continued. Mr. Oliver Wendell Holmes gives us his ideas of the Christian Tartarus, and he immortalizes Timothy Dexter, of Newburyport, "the first Lord in the United States of America."

The New Review for August contains, besides the continuation of the combination story by H. Rider Haggard and Andrew Lang and other readable articles, a reproduction of Prof. Max Müller's lecture entitled "A Lecture in Defense of Lectures." The learned philologist, after stating certain drawbacks which lectures possess and replying to the objections usually urged against them, adds "I must admit that there is with lectures, more particularly with eloquent lectures, this great danger, that they produce too implicit a deference to authority." He points out that the best safeguard against this unquestionable danger is supplied by the Science of Language, "in showing us the intimate connection between language and thought, and letting us see how words arise, how they change from generation to generation, how they grow old and corrupt, and have often to be discarded altogether." Prof. Max Müller mentions the interesting fact that all of his correspondents on the subject of the identity of thought and language, subsequent to his lectures on the "Science of Language," "came to see in the end that what is called deliberate thought was altogether impossible or inconceivable without language."

We have received from Mr. F. W. Frankland of Wellington, New Zealand, a number of leaflets, forming together an "Outline of Bible Theology," extracted from *The Beroam*. Mr. Frankland entertains the view that the second coming of Christ took place in connection with the destruction of Jerusalem, and that it was a literal coming in the spiritual world. In his leaflet *The Time of the 'Parousia' or Second Advent and First Resurrection*, he gives the scriptural reasons in support of that view. We have also received from Mr. Frankland "Seven Propositions respecting the Anticipative Miniature of the Second Spiritual Church," and the introductory part of "Altruism and Happiness; or Rational Echaology," with two articles by him reprinted from *The Monthly Review*. One of these entitled "Ormuzd and Ahriman" supports the view of the eternal pre-existence of good and evil, and the other, "A few words on the metaphysics of space," is a reply to W. Fitzgerald on a fourth dimension in space. Mr. Frankland has sent us also reprints of several other articles from *The Monthly Review*.

NOTES.

Mr. W. M. Salter writes to Mr. Hegeler: "I must copy a 'passage for you that I have just come across in Aristotle's *Physics*' (Edwin Wallace's translation). After speaking of the 'natural function of the living being 'to create another like 'itself, animal thus producing animal, plant plant, so that they 'may as far as possible partake of the eternal and divine,' he 'continues 'for this desire is universal, and constitutes the end 'of all natural action. . . . Since then it is impossible to share 'in the eternal and the divine in the same identical person, because nothing mortal can remain the same and individual, each 'individual shares in this in the way it can, in some cases to a 'greater, in others to a less degree, and though not actually the 'same it continues as if it were the same, because though not one 'numerically it continues one specifically.' (II 4. § 2, Wallace, 'p. 77.')

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THE UNITY OF TRUTH.

TRUTH, thou art but one. Thou mayest appear to us now stern and now mild, yet thou remainest always the same. Thou bleasest him that loves thee, thou revealest thy nature to those that seek thee, thou hidest thy countenance from him that disregards thee, and thou punishest him that hateth thee. But whether it is life or death thou givest, whether thy dispensations are curses or blessings, thou remainest always the same, thou art never in contradiction with thyself; thy curses affirm thy blessings, and thy rewards show the justice of thy punishments. Thou art one from eternity to eternity; and there is no second truth beside thee.

There was a strange superstition among the learned of the middle ages. The Schoolmen believed in the duality of truth. Something might be true, they maintained, in philosophy, which was not true in theology; a religious truth might be true so far as religion was concerned, but it might be wrong in the province of science, and *vice versa* a scientific truth might be an error in the province of religion.

The *Nation* of August 7th, 1890, contains a criticism by an able pen of the aim which is pursued by *The Open Court*. But the criticism is written from the standpoint that the duality of truth is a matter of course; whereas it is merely a modernised reminiscence of the scholastic doctrine that that which is true in science will not be true in religion.

The criticism of *The Nation*, which was quoted in full by Mr. Hegeler, in his article, "Science and Religion," (No. 157), characterizes the effort to conciliate religion with science as a fore-determined conclusion—a struggle that implies a defect of intellectual integrity and tends to undermine the whole moral health. . . . "Religion," it is maintained, "to be true to itself should demand an unconditional surrender of freethinking."

It is true enough that many religious doctrines stand in flat contradiction to certain propositions that have been firmly established by science; and the churches that proclaim and teach these doctrines do not even think of changing them. There are dogmas that defy all rules of sound logic, and yet they are retained; they are cherished as if they were sacred truth. But church doctrines and dogmas are not religion; church doctrines and dogmas are traditions.

They may contain many good things but they may also contain errors, and it is our holy and religious duty to examine them, to winnow them so as to separate the good wheat from the useless chaff.

Let us obey the rule of the apostle, to hold fast only that and all that which is good. And what is good? Let us enquire of Truth for an answer. That is good which agrees with truth. Good is not that which pleases your fancy, however lofty and noble your imagination, and however better, grander, or sweeter than the stern facts of reality you may deem it to be. You will find that in the end all things that appear good, but are not in accord with truth, are elusive; they will be discovered to be bad; usually they are worse than those things which are bad and appear so to us at first sight.

What is religion? Religion is our inmost self; it is the sum total of all our knowledge applied to conduct. It is the highest ideal of our aspirations, in obedience to which we undertake to build our lives. Religion in one word is truth itself. Religion is different from science in so far as it is more than scientific truth; it is applied truth. Religion does not consist of dogmas, nor does the Religion of Science consist of scientific formulas. Scientific formulas, if not applied to a moral purpose, are dead letters to religion, for religion is not a formulation of truth, but it is living the truth. True religion is, and all religion ought to be what Christ said of himself and of his mission, "the way, the truth, and the life."

If a teacher tells his pupil never to be satisfied with his work until the result when examined agrees with the requirements, and to work his examples over until they come out right; is that a predetermined conclusion? In a certain sense it is, but not in the sense our critic proposes. If objection is made to a duality of truth, and if it is maintained that religion and scientific truth cannot contradict each other, is that an effort which "implies a defect of intellectual integrity and tends to undermine the whole moral health"? Just the contrary; it is the sole basis of intellectual integrity, it is the indispensable condition of all moral health.

"Religion to be true to itself should demand," and that religion which *The Open Court* proposes, does demand not "an unconditional surrender of free-

thinking" or of free enquiry, but an unconditional devotion to truth. Does science demand free thinking? Perhaps the answer may be "yes," and there can be no objection provided that free-thinking means free enquiry and the absence of all compulsion. But the free-thinking that is demanded by science means at the same time an absolute obedience to the laws of thought. The same free-thinking, which is at the same time an unconditional surrender to truth, is the cardinal demand of religion. The great reformer Martin Luther called it the freedom of conscience and considered it as the most precious prerogative of a Christian.

The Open Court does not propose to conciliate science with certain Christian or Mosaic or Buddhistic doctrines. This would be absurd and such an undertaking would justly deserve a severe criticism, for it would be truly a predetermined conclusion in the sense that our critic intends. It would "imply a defect of intellectual integrity and undermine the moral health." Autocracy and individualism are not reconcilable, but socialism and individualism are reconcilable. Order and liberty are not such deadly enemies as may appear at first sight. Superstition and science are irreconcilable, but religion and science are not irreconcilable. Indeed, the history of religious progress is a constant conciliation between science and religion.

Religion and science, it is maintained, must "seek each a self-development in its own interest." Certainly it must, but this does not prevent that which we deem to be religious truth being constantly examined before the tribunal of science, and that which we deem to be scientific truth being constantly referred to religion. Our critic seems to have no objection to religion and science coming into accord, but he proposes to wait until they approach completion. If this maxim were universally adopted, there would be no progress in the development of religion. Is not "completion" a very relative state? Waiting for completion would be about equivalent to stopping all social reform until mankind has reached the millennium. Every social reform is a step onward along the path to the millennium, and every conciliation between science and religion is a step onward in the revelation of living truth.

The religion of the middle ages was a religion of dualism, it proposed the duality of truth. The religion of the future will be a religion of Monism; and what means Monism? Monism means unity of truth. Truth is invincible. It never contradicts itself, for there is but one truth and that one truth is eternal.

A SHEEPISH TAX.

BY F. M. HOLLAND.

THERE is a good deal of romance about the shepherd with his pipe and crook. Our American shep-

herd's crook, however, throws too heavy a burden of taxation upon our people; and we pay him exorbitantly for piping the tune to which we all have to dance. How badly the poor are fleeced to enrich the wool-grower, was shown in my previous article;* and I now wish to show how the tax for his benefit is actually collected, and also what effect it has upon the prosperity of manufactures and on rates of wages in factories.

This duty, in the case of merino and other fine wool, such as is used for clothing, is ten cents a pound for grades not worth more than thirty cents a pound; for more costly grades the rate is twelve cents; and the average increase of price in consequence is fifty per cent. Coarse wool, used for carpets, is taxed two and a half or five cents a pound, according to value; and in this case the duty amounts on the average to about twenty-five per cent. The result is higher prices of American as well as foreign wool, and also of all woolen goods, wherever manufactured. This is precisely the way in which the duty was meant to act; and if it did not work so, it would be abolished at once. The duty on wool was intended for the benefit of the grower; and the only way it can help him is by keeping up the price of his fleece. His gain is his neighbor's loss. Even protectionists admit that "protection raises prices"; and they would not want it if it did not.

It is estimated that one-half of all the wool used in America is imported, partly in the form of woolen cloth. In taxing the half which is imported, government raises the price of the half which is grown here also, and of all the woolen goods sold in America. Every dollar thus raised by the government costs the people two dollars, one of which goes as extra profit to the wool grower, who could not be protected otherwise. This makes the tax on wool twice as oppressive as if it were laid on articles not produced in this country, like rough diamonds. They come in free of duty; but every dollar taken from our people by taxing them would go straight to the government.

It must also be noticed that this tax on wool is not intended to protect the manufacturer in the least; and its actual effect is to make him pay twenty-five or fifty per cent. more for his wool than his rivals do abroad. Every other nation which has factories lets them have wool and other raw materials free of duty.

Our National Association of Wool Manufacturers complained, some years ago, that they were thus put under "disadvantages from which our foreign competitors are wholly exempt;" and the Wool Consumers' Association, largely made-up of owners of factories in New England, has asked in vain of Congress, "that American industry may be relieved of this un-

* See No. 150, of *The Open Court*.

natural burden." The circular of this Association declares that, "The foreign manufacturer alone has profited by the duty on wool," while the American has been "constantly and heavily handicapped." Recent reports from our woolen mills are by no means rose-colored; and our import of European cloth was almost twice as large in 1888 as in 1880.

It is true that our manufacturer is given some compensation, for the dearness of his wool, and that for this purpose there is a duty on all woolen goods of thirty-five cents per pound, or forty in case the price per pound exceeds eighty cents. This duty according to weight presses most severely upon buyers of cheap goods, as has been shown already; and it must be remembered that its object is simply to repay the manufacturers for what he loses by the tax on wool. If it were not for this loss, he would need no other protection than what is given him by a tax, imposed according to value, and amounting to thirty-five per cent. This latter tax has always been in force, though its rate has varied; and there is very little controversy about it. The main difference of opinion is about the propriety of taxing wool, and repaying the manufacturer by the duty imposed on cloth according to its weight. He is supposed to gain much more than he loses by this arrangement, except in the size of his market. He cannot send woolen goods abroad without being undersold hopelessly by foreigners who get their wool at two-thirds of the price which he is obliged to pay. They pay lower wages, also; but he gets more efficient operatives, so that he pays no more money than they do for the same amount and quality of work. This substantial equality in cost of labor has been expressly admitted by Secretary Blaine, and proved by actual comparison of the books kept in English and American factories. The only advantage which the foreigner has is in the cheapness of wool and other raw materials; and this is enough to close every foreign market against American goods. Many of our leading manufacturers declare that they had rather make large sales at moderate profits than small sales at high rates; and there can be no question which would be better for our people generally.

The interest of the operative is to have the demand for labor increased, or in other words to have our factories run to their full capacity, and their number increase rapidly. Plenty of work means plenty of pay. The only way to increase the demand for labor is to increase the demand for goods, by throwing new markets open. The manufacture and exportation of shoes and other leather goods have greatly increased among us, since hides were put on the free list; and the recent attempt to restore this duty was defeated by the general protest of business men of all parties. Our shoe-shops need free hides in order to have wages

kept up; and there is just the same need of free wool in our woolen mills. The two cases are precisely similar; and the decision of our legislators not to restore the duty on hides is an admission of a principle which forbids taxing wool or other raw materials. Mr. Powderly and other friends of the laborer insist that raw materials ought to come in free, in order to make manufacturing prosper and wages remain high. It is restriction to a single market that has made over-production easy, factory business slack, and wages much too low, considering what high prices our operatives have to pay for the necessities of life. They get no compensation for having the tariff double the average prices of their shawls, woolen cloth, stockings, etc.; and all their burdens will be increased by the McKinley bill.

The duty on wool is often said to benefit no one but the wool grower; and there is much reason to doubt if it is of any real benefit to him. The national librarian says that the average price of wool was more than twenty per cent. higher, during twenty years in which there was little or no duty, than since the present tax was imposed in 1867. In that year there were more than twice as many sheep as at present west of the Mississippi and Missouri rivers; and the loss in Illinois is nearly three-fourths. It looks as if our American Boo-Peeeps would soon find they had lost all their sheep, except in the far West. There sheep are still so profitable, that many who raise them would gladly have all duties on foreign wool abolished. They know that Idaho wool will always be needed in our factories, however low may be the price of Australian and South American wool; and that the greater the importation of foreign wool the greater will be the demand for American wool to mix with it. So the Wool Consumers' Association declares that "The duties on wool ought to be removed or greatly reduced for the benefit of our domestic wool growers and woolen manufacturers alike."

In short, the duty on wool seems to benefit no one, not even the grower; and it is certainly a heavy burden on all consumers, especially operatives in factories. If those who have kept it up for twenty-three years knew what they had done, they would say, "All we, like sheep, have gone astray, and there is no sense in it."

A SOCIAL EXPERIMENT.

BY MADAME E. FLEURY ROBINSON.

[CONCLUDED.]

WHEN my parents decided to join the communistic colony at Nauvoo, we had to leave the mother country with no hope of returning. A list was sent to the families that purposed joining the community, of the articles of clothing to be allowed to each one. For

example, jewelry and bric-a-brac, were to be sold or given away, and often when these were gifts or souvenirs it was particularly painful. Almost everything else had to be sold, for it was desired that all should contribute as much as possible, over and above their admission fee. The members were also to take the name of "citoyen" and "citoyenne," the term Monsieur and Madame savouring too much of the old régime.

In our case everything being ready, a sad adieu was said to friends and relatives, and the diligence, (in those days there were no railroads,) carried us away to Paris, where our money and valuables were to be left at the community's office in the Rue St. Honoré. We heard here we were to meet a party of Icarians at Hâvre, from which place we embarked with them one afternoon in a slow sailing vessel, which was to be our home for fifty-six days. The party was thoroughly animated with the principles of equality and brotherhood; they were ready to help one another without any hope of being rewarded for so doing, and many were the opportunities presented to test their loyalty to those principles.

Arriving at New Orleans a few days were spent there waiting for the steamboat which was to carry us to our home at Nauvoo. St. Louis was passed on the way, where a few seceding members, still concerned in all that related to the community, tried to discourage and detain the new arrivals by representations partly false and partly true of their experiment. They were successful in some cases where the argument used, touched some weakness or failing in the individual. To those fond of dress they represented the simple and even coarse clothing worn by the members; to the fond mother the separation from her children; to the industrious they told of the labor by which the lazy profited as well as themselves, and only the most devoted to the cause reached the community without some abatement of their enthusiasm. This seceder's station at St. Louis did much to sow discontent among the new comers, and afforded an easy retreat for those who afterwards became dissatisfied.

We had left France at the end of February, and reached Nauvoo in May. The landing place was a stone building which had been erected by the Mormons as a warehouse and station for steamboats. Several Icarians were there to meet us and we were taken to the town. Rooms had been made ready and everything provided for our comfort.

After a few days of rest, during which all the news from France was eagerly devoured, the new comers were assigned to their places. The children were taken to school, and the tears flowed freely when mother and children, brothers and sisters were separated. The community itself was very much like a

school for adults. A large square, in which the Mormons had built their temple, had been chosen as the centre of the Icarian colony. Several houses had been rented for the accommodation of the families, but a large building had been erected for a refectory, kitchen, hall for meetings, and where, on Sundays, the members met for readings or amusements. A theatre by Icarian artists, and music by their own orchestra of forty pieces, was enjoyed by all, even by the Americans, who became quite anxious for invitations to the Sunday entertainments.

Forbearance, humility, charity, and other great lessons were to be learned, and some old ways and bad habits had to be abandoned. Selections were often read to impress these lessons and arouse the socialistic enthusiasm.

For a period of seven years Icaria prospered, and with but few exceptions, all the members were contented if not happy. There was certainly a shadow in this picture, but it arose from the financial straits, which materially contributed to the ultimate downfall of the community. Finding that they were unable to pay the rents of their lands, three thousand acres were purchased in Iowa. A few were sent to prepare for the future transfer of the whole colony. Later, dissensions arose. Some, claiming that M. Cabet's faculties were declining, formed a conspiracy against his authority. This resulted in a division, and one hundred and eighty members followed M. Cabet to St. Louis where they had resolved to retire.

M. Cabet was now sixty-nine years old. This separation affected him more than all he had dared and suffered in his long career. One week after their arrival in St. Louis, he died of apoplexy, or rather of a broken heart.

His followers tried for some time to organize a new community. With the same principles and fresh courage, they thought to realize the ideal even more perfectly than the first attempt had done. Prosperous for awhile they finally split on the question as to who should be the successor of M. Cabet, who had been elected director for ten years. There were those who wished to elect a director for life. Division was the result, and the minority retired. Financial embarrassment finally compelled the few persevering ones to discontinue their community.

The community at Nauvoo suffered much materially and morally from the separation. Reduced in numbers with diminished means, they resolved to remove to Iowa. Here new trials and difficulties awaited them. Their land lay in Adams County, near the Missouri River. M. Cabet, at the time the site was selected thought it best that the community should live in great seclusion, but it was unnecessary to choose such a remote tract of land. The markets were very

distant at that time, and if the Icarians had had a surplus crop, they could not have sold it. The cost of removal, and the difficulty in obtaining materials was a further drain upon their resources.

The story of the privations suffered in those pioneer days in Iowa is a very sad one. Those leaving Nauvoo to join the colony in Adams County, where there were no railroads, were many days on the way. At last reaching the settlement they found a few log houses without floors, doors or windows, which in summer did very well, but were practically useless when winter approached. Men and teams had to be sent a hundred miles to St. Joseph, Mo., which was then the nearest and largest city, for supplies. These trips were made several times during the year, the colonists taking with them bacon and corn, the only products as yet to exchange for glass, hardware, dry goods, and groceries. But few groceries were purchased, as only the sick and feeble could have sugar, coffee, and wheat bread. The able-bodied drank coffee made of roasted rye, without sugar, and ate corn bread and bacon. The menu for meals was soon arranged. For breakfast rye coffee, corn bread and butter; dinner, corn bread and bacon; supper, mush and milk.

The few goods purchased were unbleached cotton and dark blue gingham or calico for the women; some kind of twilled woolen goods for the men.

When, in 1860, the civil war broke out, provisions of all kinds became so expensive that the greatest economy was necessary, calico being fifty cents a yard, all else in proportion. When I remember how cheerful we were, with so little to make us happy, I realize how true it is, that we are to a great degree creatures of circumstances.

When the men returned with their purchases they were looked upon as heroes who had accomplished some great deed, for the men spoke little English, and it was as if they had been away to a foreign country.

Slowly the houses were finished and each family made its home as comfortable and pretty as possible. The next year the crop of wheat afforded flour for wheat bread; cattle and sheep furnished meat; vegetables were plentiful, and although there were no luxuries, there was an abundance of the necessities of life.

The men started to their various labors in the morning, and the women, after arranging their homes, would go to the common room, some good reader being chosen to entertain the citizenesses while they sewed or mended. Others went out to the laundry or to help in the kitchen. These last occupations were taken in turn, so that pleasant and unpleasant work was done by all. The cooking had always been done by men. At the time of which I speak, we had the good fortune to have a chef de cuisine, who has

since become wealthy as a restaurateur in St. Louis, not in a better cause, but with better materials for his business.

Assemblies were held every Saturday evening where propositions for furthering the welfare of the community were discussed and voted upon. Women did not vote, but were free to offer their opinions. Officers elected by vote executed the decisions of the assemblies.

Each member employed Sunday as he wished, and in the evening, music, the theatre, or dancing, afforded amusement for all.

Although it began in poverty, the community now possessed 2,000 acres of land, 600 sheep, 140 head of cattle, and 40 horses. Everything was plain but substantial, and the majority were contented. Still, the members did not always agree, and from time to time many became dissatisfied and withdrew. My own family withdrew from the colony in 1863, taking next to nothing with them.

In 1876, two parties, one composed mainly of the older members, averse to changes; the other wishing to make improvements in the practical life of the community, became quite antagonistic and finally proposed terms of separation.

There was no lack of zeal on either side for their social ideal, the difference was over a question of community policy. The party which demanded separation asked a division of land and stock. Each man, woman, and child to be given ten acres of land; each branch to carry on their affairs separately, and to admit such members as they might think suitable. This proposition was rejected and the struggle between the progressive and the conservative party made enemies in the same household and sundered many ties. Recourse to the courts was the result.

In 1878, the court declared the charter of the colony forfeited, and appointed trustees to wind up the business of the community. Later, American arbitrators were chosen to replace the trustees, who apportioned the property among the members of each party as best they could, and the colony divided into an Eastern and Western settlement. The old party was to remain in the original village, but by agreement, they consented to become the emigrants, taking the name of the New Icarian Community. The young party settled in the village and kept the ancient name, namely the Icarian Community, and both with commendable courage and patience took up the broken threads of community life.

On the 1st of January, 1883, the property of New Icaria, composed of the old members, was worth \$25,000, with but \$4,000 indebtedness. Its membership amounted to 34. The acquisition of wealth not being their main object they tried to make their toil

as light as possible. They established at that time and still publish a little paper, to apprise their friends in the United States and in France of their doings.

Their life would seem monotonous to many, yet, I believe, it is a more rational life than that which is led by most American farmers. In this age of discontent the Icarians lead a serene and quiet life.

The other, younger party consisted in 1883 of thirty-five members, mostly women and children. A document was drawn up by which any one who should leave the community in the future, agreed to relinquish all claim upon the community's property. They admitted new members, and soon their membership increased to seventy. All labored with energy; they adopted advanced methods of agriculture. Many applicants wished to be admitted, and young Icaria enjoyed an enviable reputation. This good fortune was not to be continued. No bitter crisis or quarrel arose, only differences of opinion as to matters of policy.

Some retired to private life; one or two families went to Florida, with the purpose of founding an Icarian colony there, and one group went to California to inaugurate still another enterprise.

So many members leaving, it was found impossible to keep up all their industries, and the cultivation of land on a large scale was given up. They found that the arduous business of general farming was an impediment to their moral and intellectual progress, and they began to think of moving to a milder climate where horticulture, an employment more suitable to the Gallic temperament, would take the place of general farming.

Florida, Texas, Tennessee were talked of. Finally negotiations were entered upon between the group that had gone to California and those left in Iowa, and an agreement was made to unite as soon as the property in Iowa could be disposed of.

The California community is called Icaria-Speranza. Surely the prospect is attractive. It looks as if a better opportunity was now offered for testing their Icarian principles. The six months' of leisure afforded by the climate in the beautiful land of California will give them the time needed for mental improvement.

Composed of an intelligent and industrious class of mechanics and of many remarkable men, why did Icaria fail?

The first cause was certainly the want of funds to carry on such an enterprise in a foreign land. Had the community, like that in M. Cabet's "*Voyage en Icaria*," been isolated; had it not needed intercourse with the outside world, and could it have lived as people do in romances on principle and sentiment, Icaria would, no doubt, have kept all its adherents. As it was, new customs and manners of transacting

business had to be learned; the language was new to all but a few, who understood it incorrectly.

The American people, although republicans, were antagonistic to ideas of communism and democracy, as understood by the French republicans. It was said by those of the first advance guard, that while in Texas and Louisiana, their name of democrats made friends for them everywhere, but that after their removal to Illinois and Iowa, this name caused them to be looked upon with suspicion and made their neighbors more averse to them.

On account of their financial needs, many were taken into the community who had means, but whose principles were far from those required to insure success to a community where peace and unity were the first obligations. Later, the older members failed to discern that the best interests of the community required innovations.

It was evident also that by intermarriage with the Americans, an element was introduced which tended to undermine the unselfish communistic ideas which lay at the foundation of Icaria; for I have no doubt that the proposition to divide the property of the community originated with the American element. It was next to impossible that the children of the Icarians themselves brought up in communistic principles and whose parents in many cases had grown old in the service of the community, should wish to undo the work accomplished with so much labor and heroic self-sacrifice. The experiment of Icaria certainly developed the intellect of all its members, and proved that a society can exist without pauperism, intemperance, or crime.

Many of the adherents to this cause developed a character, and a high purpose in life, such as few men under other circumstances attain to.

It proved that selfishness and competition are not a necessary foundation of society as many affirm, and as for myself I am ready to say that the years during which I knew no mine and thine, were with all the privations, the happiest in my life.

The actual results of practical Communism thus far, have illustrated very imperfectly the advantages which belong to this mode of living. But as men advance to higher stages of culture, this way of living will be more possible, and I believe will more and more be tried, and more and more succeed.

FEELING AS A PHYSIOLOGICAL PROCESS.

In a former article of ours entitled "*Feeling and Motion*," the question was proposed: "What is the molecular combination that is accompanied with feeling, and what is its mode of action?"

This question is not as yet answered by physiology. It is a problem still, and we are far from a solution

that would be satisfactory in all its details. We know something about the subject, but that something is very little in comparison to what our physiologists would like to know.

The ganglions are for good reasons supposed to be the seat of feeling; yet it must not be understood that feeling is created there alone. It is there alone that feeling is centralized. It appears that the sensory organs with their natural covering, the skin, also belong to the whole feeling apparatus. Every one of them is an indispensable part for the production of normal feelings. If any one of these parts is injured, feeling will either cease altogether or at least be disturbed. If, for instance, the tactile bodies (the Pacinian corpuscles) are not covered with skin, irritations will no longer be felt as tactile impressions, but as pain.

The process of a nervous transmission is extremely complicated, and our observation is limited to its crudest outlines only. We know, however, that the transmission through the ganglions must be even more complicated than the transmission through the fibres, for according to minute measurements by Helmholtz, a nervous shock travels through the human nerve fibre at an average rate of 30-40 metres in a second, but it is much retarded on its passage through the ganglions.

* * *

Du Bois Reymond has proved that every transmission of nervous irritations is accompanied with electrical phenomena. The apparatus connected with the nerve for measuring the electric tension shows a decrease of the strength of the current during a state of nervous activity. This was called by Du Bois Reymond *negative Schwankung*, "negative fluctuation."

The negative fluctuation of the electric tension, it may be incidentally mentioned, is not at all a phenomenon of nervous activity alone. Du Bois Reymond's law holds good for muscular fibres also. In a state of rest, the living muscle, like the nerve, shows in the galvanometer the presence of a low and constant current, which in a state of activity noticeably decreases, proving that that much electricity is being used in other directions.

The nervous system is often, and not without good and obvious reasons, represented as a telegraphic apparatus. The method of transmission also has repeatedly been compared to our modern system of telegraphing through electric currents. The wonderful achievements which man accomplished with the help of electricity, seemed to suggest that nervous transmission might be of an electrical nature. Since the discovery, however, made by Du Bois Reymond, we know for certain that this is an error. Nervous transmissions are accompanied by electrical phe-

nomena, yet they cannot be explained as such. This is evident even from the different rate of transmission; electricity travels, according to Wheatstone, 464,000,000 metres in one second, while the velocity of nervous irritations, in spite of all the fabulous swiftness of thought, is more than ten million times slower; and if nerve-activity is to be regarded as electrical action, how can it differ from muscular activity which exhibits the very same electrical phenomena? Neither can the nerve-fibres be compared to the wires of a telegraph, which are transmitters simply of the electric current; for every single nerve-cell in a nervous fibre, and also every cell in the muscular fibre, is in itself a small electric battery. The whole process of nervous transmission may rather be compared to a number of small explosions transmitted over a line of grains of powder. An irritation, i. e., an impression received by some contact with the outer world in a sensory organ, being transmitted through the sensory fibre to the ganglion, and from the ganglion through the motor fibre to a muscle, causes along the whole tract of its transmission a continuous discharge of potential energy stored up in the nervous substance. The transmission being accompanied with many other phenomena, ends in an innervation of the muscle which forms the terminus of the motor nerve. This innervation is the nervous discharge that causes the muscle to contract and thus produces mechanical motion.

* * *

Let us for the sake of illustration represent the nerves as a series of compressed springs, so arranged that if one is released it will at the same time release the next following; thus any disturbance will travel from one to the other along the whole series. The organism is constantly at work to repair the losses incurred. As soon as potential energy is set free, new structures are built by the circulating fluids freighted with vitalized substances. Thus by the activity of the blood, to return again to our simile, the discharged springs of the nervous system are again and again compressed, and thus they are, unless the exhaustion be carried too far, always ready for action.

If a shock is transmitted, the effects produced depend first upon the shock itself. The more violent a shock is the more sudden will the disturbance be. And if a shock covers a larger field of the skin, it must necessarily irritate a larger number of nerve-fibres, thus producing a greater excitement than if two or three nerve-fibres were disturbed only. Yet the main determining factor of the effect, it appears, is the specific energy (as Johannes Müller called it) of the nervous substance in the nerve as well as in the ganglion. Similarly, if a shock is transmitted through a series of springs, the effect will depend upon the springs chiefly—upon their form and their tension;

form and tension are the "specific energy" of the springs. The different nerves became adapted to special irritations. The optic nerve became adapted to the ether waves; their irritations are transferred to the optic ganglions, and there possibly the disturbance is accompanied with a feeling called light. The auditory nerve became adapted to air waves; this irritation is transmitted to the auditory ganglion, and there possibly it is accompanied with a feeling called sound; etc. By a constant and exclusive use for their specialized purposes through many thousands of generations, the tissues became so adapted to their special work, that now they cannot otherwise react against any kind of irritation than as sensations, the one of light and the other of sound. Any disturbance, a ray of light as well as an electric current, or a mechanical concussion, will produce sensations of light on the optic nerve, and sensations of sound in the auditory nerve. The same causes will produce sensations of smell in the olfactory nerve, and sensations of touch or of temperature in the sensory nerves that terminate in the skin.*

The feeling which originates in the ganglion, during the transmission of a nervous perturbation, can depend upon the forms only of the different cells. A certain shock is received which sets free a series of tensions; the liberation of some of these tensions in the ganglion is a commotion of sensory cells, accompanied by feeling. It is called a sensation. The course of motions nowhere ceases to consist of motions. We have a continuous transference of motions, yet some of these motions are accompanied with feeling. These feelings are different among themselves, and we have sufficient evidence to believe that their difference exactly corresponds to the different forms of nervous action which they accompany. We may, accordingly, without impropriety, speak in this sense of the different forms of feelings.

Suppose we had before us a line of cards arranged in pairs leaning one against the other, in such a manner that a slight shock will upset the whole series; a simile often employed to explain the transference of nervous shocks. At a certain point, in about the middle of the line, let us suppose that a bell is fixed, the tongue of which strikes the bell upon the overthrow of the two adjoining cards. At the end of the line, upon the two last pairs of cards, stands a small vessel filled with water. Upon the overthrow of the cards the water is spilt. The striking of the bell represents sensation,† the spilling of the water

muscle-innervation. The striking of the bell is not changed into a spilling of water: the former only precedes the latter in time. If a nerve is irritated below the ganglion, a muscle-innervation takes place without sensation, with the same necessity as the water is spilt without any previous sounding of the bell, when the cards below the bell only have been upset. But when the motor nerve is cut, and the sensory nerve is irritated alone, then sensation only occurs, without any reflex muscular motion, just as a perturbation of the upper line of cards will make the bell sound, but if the line below the bell is interrupted, it will not cause the spilling of the water.

The mechanical connection of causes and effects need not be interrupted, if that part of the transmittance of nervous irritations which takes place in the ganglion is so disturbed as to produce no actual feeling. Suppose the bell be covered with a woollen cloth, will not then the phenomenon of sound that accompanies the process cease altogether, although otherwise there is nothing changed in the mechanism of the transmission? And when, through alcoholic poisoning, through medical drugs (anæsthetics), or through any nervous disturbance, consciousness is for a time obliterated, may not a man under certain circumstances act exactly as if he were in full possession of consciousness? Does not often an intoxicated man or a hypnotized subject move about and talk like other people, and yet he knows nothing and afterwards he will remember nothing of all that happened?

The concatenation of circumstances is such that we are easily misled to suppose that when the cards are overthrown the striking of the bell causes the spilling of the water, and that consciousness sets the muscles in motion. On this supposition only, which takes a *post hoc* as a *propter hoc*, i. e., a mere sequence as a causal connection, is based the assumption that consciousness is the motor power, the *primum movens*, of the soul; the cause, the principium, and beginning of man's muscular movements, the origin and source of his activity. However, consciousness does not produce the activity of our body. Consciousness, as M. Ribot says, does not constitute the situation; on the contrary, it is constituted by the situation. Consciousness is an indicator only of a certain

Some psychologists compare the phenomenon of feeling to the shadow which accompanies the motions of a body. But a shadow is the absence of light and light again is a mode of motion. Feeling is no motion, nor is it the disappearance of motions. Other psychologists have compared consciousness to the sparks that an engine emits with the smoke. Sparks also, being little particles of fire, are modes of motion. Thus these similes are also inadequate.

It will be difficult, if at all possible, to find an appropriate simile, and why? Because, whatever allegory we take from the processes of the objective world, we constantly remain in the province of objectivity. Whatever unspeakable difference there may be between two processes of objective phenomena, they belong to the same domain; while the domain of subjective reality or feeling, in spite of the parallelism between both, is so heterogeneous that it suffers no comparison.

* Compare E. Hering, "The Specific Energies of the Nervous System," Nos. 22 and 23 of *The Open Court*.

† The simile is in so far inadequate as the striking of the bell and the air vibrations of sound are motions also. Feeling, however, is no motion, and does not originate from a transformation of either potential or kinetic energy.

condition of our nerve-activity. It is not the cause of a man's will, but it is the expression of a certain state of mind, which, under normal conditions, will be followed by an act of will, be it a real muscular motion, a spoken word, which of course is muscular motion also, or the inhibition of a motion.

Every idea considered not as a mere feeling but as a brain-structure fit to serve as an irritation to action (we call such ideas impulses), will, if not inhibited, pass into an act, whether it be connected with consciousness or not. Consciousness itself is not the motion that causes the transmission of nervous irritations, it is not the agency that discharges the innervation for contracting the muscles. It is a phenomenon that merely accompanies the physiological process of a nervous transmission through the ganglion.

It is not the shadow that makes our body move; it is the body that moves; and the shadow accompanies the movement. It is not the ticking of the pendulum that sets the wheels of the clock in motion, but the swinging. The motion of the clock is produced by the pressure of the weight which is transferred to the pendulum in the form of vibrations. The motion of our limbs is caused through the transmission of a nervous perturbation, setting free a part of the potential energy stored up in our motor nerves and in our muscles; but there is, properly speaking, no change of "consciousness" into "will," no change of "feeling" into "motion."

When we compare consciousness to the ticking of a pendulum, we do not wish to maintain that consciousness is as superfluous and indifferent as the ticking of a pendulum. We merely express in this simile that it is destitute of motor power. Although consciousness is destitute of motor power, it is nevertheless of paramount importance. There is nothing redundant in nature; how can consciousness be a superfluous factor in the constitution of man's mind?

Consciousness may be compared to a light. It affords in novel and difficult situations the possibility of circumspection. The light in a machine room will enable the attendant engineer properly to regulate the motions of the engine; but the rays of the lantern have no locomotive power upon the wheels and piston, so as to set the engine into action. If the engineer is a novice, he cannot do his work without light, but the expert knows how to direct the lever even in the dark. The consciousness of mental states is an indispensable condition of the proper direction of will, but it does not possess motor power.

* * *

There appeared some time ago in *The Open Court* an interesting discussion, conducted on both sides with great ability, between Professor E. D. Cope and Dr. Montgomery on the subject "Can Mind

move Matter?" Professor Cope answered the question in the affirmative, and Dr. Montgomery in the negative. But it appears that both used the word mind as a synonym of consciousness. We should answer the question "Can Consciousness move Matter?" with Dr. Montgomery in the negative, for consciousness possesses no motor power. Yet the question "Does consciousness enable the mind to control certain motions of matter?" (so Prof. Cope understood the question) we should answer with Professor Cope in the affirmative.

We understand by mind, as the term is generally used, not consciousness alone, but the whole mentality of man. It is a synonym of soul, and as such we understand by mind a special form of an organism, the activity of which is accompanied with states of consciousness. The expression "soul" appears preferable, if we think of emotions chiefly, while "mind" has a special reference to the intellectual qualities. If "mind" is used to mean man's thinking organ, not as mere form pure and simple, nor as mere feeling, as mere consciousness, which as a matter of course exists as an abstract conception only, but as real brain structure, in the sense of living nerve substance of a special form, freighted with potential energy, and representing a special combination of ideas; there can be in that case no doubt about it that mind does move matter. *Mens agitat molem!* says the Roman poet,* and it is a very old truth. The faculty of moving matter is indeed the main thing that gives value to the mind of man, for it is his mind that enables man to control the world about him.

P. C.

THE SUPERSCIENTIFIC AND PURE REASON.

Fundamental Problems, we find, has been a surprise to a reviewer of *The Nation*. He says:

"A book of newspaper articles on metaphysics, extracted from Chicago's weekly journal of philosophy, *The Open Court*, seems to a New Yorker something singular. But, granted that there is a public with aspirations to understand *Fundamental Problems*, the way in which Dr. Cope treats them is not without skill. The questions touched upon are all those which a young person should have turned over in his mind before beginning the serious study of philosophy. The views adopted are, as nearly as possible, the average opinions of thoughtful men to-day—good ripe doctrines, some of them possibly a little *passé*, but of the fashionable complexion. They are stated with uncompromising vigor; the argumentation does not transcend the capacity of him who runs."

"On the whole, *The Open Court* is marked by sound and enlightened ideas, and the fact that it can by any means find support does honor to Chicago."

Although the reviewer speaks so kindly of *Fundamental Problems*, he has also faults to find. He discovers some inconsistencies:

"If there be here and there an inconsistency, it only renders the book more suggestive, and adapts it all the better to the needs of the public."

It is not the kind praise allotted to the book which prompts me to take notice of this review, it is the inconsistencies with which it is charged. Some of them have reference to the most 'fundamental problems.' Upon the solution of these problems the treatment of many less important problems depends. The critical

* Virgil, *Aen.* vi, 757.

parts of the review appear to me of sufficient importance to be discussed in detail.

THE SUPERSCIENTIFIC AND THE CONDITIONS OF SCIENCE.

The reviewer says of the book:

"The theory it advocates is superscientific."

Here I must protest against the word "superscientific." It is none of my invention. All the combinations with "super" or "hyper," it appears to me, are very useful words if employed in the domain of ethics. Morality is the constant struggle to higher planes; the moral man is always engaged in improving himself as well as the conditions of human existence. Accordingly ethics must teach us to look above, it points *sursum*. It attempts to raise man to a higher and nobler existence; it instructs him how to transcend the present state and shows to the individual a realm of superindividual interests, in accordance with which the individual must regulate his actions. Whatever be the merit of the combinations with "super" and "hyper" in the domain of ethics, they are in the domain of philosophy dangerous words; for they are full of vagueness and should be regarded with suspicion.

Judging from the context, it is most probable that our reviewer limits the term "scientific" to "empirical." Botany, in that case, would be a science, but logic would not. Botany is a natural science, it rests upon empirical knowledge; logic is a theory of formal thought, it is not properly scientific, for it is not empirical; yet it is superscientific. The superscientific is applicable to all sciences, and it is the condition of all sciences. The reviewer continues:

"There is no chaos, and never has been a chaos," exclaims the author, although of this no scientific evidence is possible. The doctrine of 'the rigidity of natural laws . . . is a *κῆρυξ ἐξ ἀέρος*. Yet, emphatic as this is, we soon find the *κῆρυξ ἐξ ἀέρος* is nothing but a regulative principle, or 'plan for a system'."

The phrase, "emphatic as this is," contains a tinge of disapproval, as though the statement were made boldly. If there is any boldness in the statement of the rigidity of law, our critic must not blame the philosopher alone, but also science. Science has in these last centuries (nay, it has always ever since science was science) taken its stand upon the rigidity of law. Upon the rigidity of law depends the uniformity of nature, and without the uniformity of nature science would be impossible. The philosopher may either recognize science or he may not. If he does not, he denies the possibility of knowledge and his philosophy dissolves into scepticism. The sceptic declares that we can have no science, we can never know for certain; we can never be sure of anything, not even that $2 \times 2 = 4$; we can have opinions only. Two times two appears to us always to make four; yet it may be that to the people of the planetary system of Sirius twice two appears as five. Science cared little for sceptical objections; it progressed, and the progress of science has practically justified the boldness of the scientist.

A philosopher who does recognize science may either blindly accept or critically investigate the conditions of science, the premises from which science starts. He who blindly accepts them takes them to be too grand and divine for investigation. Philosophers of that kind are called by Kant "dogmatists." The dogmatist rests satisfied with assertions. Kant followed neither the sceptic nor the dogmatist, he proposed a middle way between both; he proposed the critical method, and herein we followed Kant.

The duty of philosophy is not to construct a system of assertions, nor is its aim to undermine the possibility of knowledge and end in eternal doubt. As the duty of science is to systematize methodically the facts in a certain sphere of experience; so the duty of philosophy is to explain this systemization, to show its conditions, and to analyze the methods by which it is done. The object of philosophy accordingly is mainly an investigation of

those "superscientific" premises upon which science is based. The whole interest of philosophy is centred in what we have defined as formal thought; for the analysis of formal thought, as well as an inquiry into its origin and its nature, teach us the ultimate *raison d'être* of the rigidity of law.

The rigidity of law—perhaps the most important superscientific proposition—is indeed a *κῆρυξ ἐξ ἀέρος*, i. e. "an intellectual possession of humanity that has come to stay for good"—not according to the private opinion of the author of *Fundamental Problems*, but according to the procedure of all scientists in all the many different branches of knowledge. The author of *Fundamental Problems* has attempted to investigate the tools with which science works not so much for the purpose of assuring the scientist that his tools are good—indeed, many scientists do not care about such an assurance, for experience has taught them to rely upon their methods, whatever be their philosophical import—but for the sole purpose of supplying the want of explanation concerning a few simple facts with which everybody is familiar, even he who cares little for understanding them. There was, for instance, one very simple question which troubled me even at an early age, the question "Is twice two always four, and if so, why?" That question has found an answer satisfactory to my mind in *Fundamental Problems*. If the statement of the solution appears to a certain class of readers too positive, I can best excuse it by a quotation from Goethe, who says:

"If I am expected to listen to the opinion of some one else, it must be positively pronounced. I have enough of the problematical myself."

Positiveness in statement is an economy in the exposition of thought, and no fault should be found with emphasis laid upon truths that remain wonderful and great even if they have become most lucid to our comprehension.

My reviewer seems to be disappointed that the *κῆρυξ ἐξ ἀέρος* is "nothing but a regulative principle or plan for a system." Is this indeed so little as to be called "nothing but"? Consider the importance of a plan, of a regulative principle, of a method informing us how to proceed. Let a man be lost in the wilderness; let him, then, find some means of orientation, of calculating the place where he is, and the direction he has to pursue. Would he consider that as "nothing but a plan"? This "nothing but a plan for a system" is all-important to science, and can appear only little to him who imagines that science is in possession of a magic key to omniscience.*

PURE REASON AND EXPERIENCE.

Further on we read the following criticism:

"Like a staunch Lockian, Dr. Carus declares that 'the facts of nature are specie, and our abstract thoughts are hills which serve to economize the process of exchange of thoughts.' Yet these bills form so sound a currency that 'the highest laws of nature and the formal laws of thought are identical.' Nay, 'the doctrine of the conservation of matter and energy, although discovered with the assistance of experience, can be proved in its full scope by the pure reason alone.' When abstract reason performs such a feat as that, is it only economizing the interchange of thought? There is no tincture of Locke here."

Locke's theory is generally, and perhaps rightly, considered as sensationalism. He proceeds from the rule that nothing is in the mind which was not before in the senses. (*Nil est in intellectu nisi prius fuerit in sensu*.) Sense-impressions are the origin and beginning of all knowledge. Locke says:

"Whence hath the mind all the materials of reason and knowledge? To this I answer in one word, from experience; in that all our knowledge is

* We omit to discuss here, for a second time, the problem of spontaneity of motion and the rigidity of mechanical laws. My critic says:

"When we afterwards read that, 'in our opinion, atoms possess spontaneity, or self-motion,' we wonder how, if this is anything more than an empty phrase, it comports with rigid regularity of motion."

The subject has been discussed in the article "Feeling and Motion," (No. 153 and No. 154), and has been mentioned again in the discussion with Dr. Montgomery (No. 156, on page 2166, of *The Open Court*).

founded, and from that ultimately derives itself. Our observation employed either about external sensible objects, or about the internal operations of our minds, perceived and reflected by ourselves, is that which supplies our understanding with all the materials of thinking. These are the fountains of knowledge from whence all the ideas we have, or can naturally have, do spring—that is, sensation and reflection."

It appears that Kant in the most essential point agrees with Locke. The very first sentence in his "Critique of Pure Reason" declares:

"That all our knowledge begins with experience there can be no doubt. For how is it possible that the faculty of cognition should be awakened into exercise otherwise than by means of objects which affect our senses?"

Locke wrote in a time when the philosophers of mankind were still under the influence of Descartes's theory of innate ideas. So he found it necessary to inculcate the truth, that all knowledge springs from "experience—that is, sensation and reflection."

Kant made a distinction between experience and pure reason. He confined experience to sensation and placed it in opposition to that which Locke calls reflection. Kant says: "Although all our knowledge begins with experience (i. e. sensation), it by no means follows that all arises out of experience (i. e. sensation)." Kant then arrives at the conclusion that there is some knowledge altogether independent of all sensory impressions. "Knowledge of this kind," he says, "is called a priori, in contradistinction to empirical knowledge, which has its sources a posteriori, that is, in experience (sensation)."

Knowledge a priori is a learned expression for that which we would prefer to call "formal thought." Knowledge a priori, said Kant, is the condition of all experience, for there can be no sensation without the forms of understanding. In other words, sense-impressions by themselves are meaningless; they have to be interpreted in order to be conceived as sensations. A sensation is a sense-impression felt to be and interpreted as the effect of some external object. But in order to achieve this mental act of changing a sense-impression into a sensation a sentient creature wants something of that faculty—be it in ever so rudimentary a state— which is called understanding.

John Stuart Mill did not see the difficulty of the situation. He based all experience upon the principle of causation, and when he was required to give an account of the principle of causation, he declared that it was derived from experience. This is called a vicious circle.

Schopenhauer was aware of the fact that the principle of causality is the condition of all experience. "We do not see with our eyes," he said, "but with our understanding." Judging from certain effects, we conclude that there are causes which produce them. Taking this ground, he believes in the priority of the principle of causation in mind, and he considers it as a real innate idea in the oldest and most antiquated sense of the term.

The term experience should be used in a wider sense, than is done by Kant; it should be used in the sense of Locke. Experience includes both sense-impressions and reflections, sensations and formal thought, knowledge a posteriori and knowledge a priori. One single sense-impression cannot constitute knowledge; it can not (as Schopenhauer proposes) be conceived as the effect of a cause. It remains a single and isolated sense-impression. But two or several sense-impressions constitute a very weak beginning of that faculty (or rather function) which in its further development is called understanding. The forms of sense-impressions and the relations among sense-impressions are also parts of experience. The formal and the relational are the sources from which springs pure reason. From these insignificant beginnings all the formal sciences, can be and have been developed.

Animals that can frame word-symbols to represent certain mental pictures, develop into rational beings; and rational beings that learn to abstract the formal element of thought and apply the rules of formal thought to experience develop into scientists.

Formal thought not only aids us in the classification of the data of experience; it also assists in the amplification of knowledge. It is this wonderful quality which makes formal thought so valuable. For the laws of formal thought possess universality and rigidity (*Allgemeinheit und Nothwendigkeit*), and again, it is this wonderful quality—apparently mysterious and yet founded in the nature of form—to which formal thought owes that odd name "a priori," because we know of all formal laws that they hold good under any circumstances. We know that twice two are four and will be four as long as cognition lasts and even longer. A reversion of the formal laws is inconceivable; for, verily, till heaven and earth pass, one jot or one tittle shall in no wise pass from the formal laws. They are irrefragable, and all the changes that are taking place around us are nothing but a constant fulfilment of the formal laws.

Locke did not recognize the all-importance of the formal element in experience—for pure reason is nothing but a system of the formal element of experience. Nevertheless, the main principle of his method, viz., that experience is the source of all knowledge, has rather been confirmed than refuted in the further progress of philosophy.

Pure Reason, or the mental function of formal thought does not stand in opposition and still less in contradiction to experience. It has grown from experience and is an integral part of experience in the sense defined above. For we understand by pure reason agreement with the formal laws of existence. The forms of things, the relations among them are also data of experience; they are not shaped by us with arbitrary liberty, they are given to us by experience. We own them in our minds as the forms of our thoughts; we have abstracted the laws of formal thought by reflection and introspection. The formal element was imported into our minds together with the sense-impressions. We do not deny that mere isolated sense-impressions can not generate knowledge; and we must not look for the source of pure reason in the sense element of the sense-impressions, but in the formal and relational element, which is imparted to sentient beings through a constant repetition of sense-impressions of various forms. The formal accordingly is ultimately derived not from sensory sources, but nevertheless from experience. It has been gained by abstraction; i. e., we have arrived at it by omitting in our experience the sensory element and by retaining the formal alone.

P. C.

CONCLUDING REMARKS IN THE DISCUSSION "IS MONISM UNTENABLE."

BY DR. MONTGOMERY.

I.

I THINK the importance of the subject involved in our philosophic passage of arms justifies another round, which I hope you will not decline.

Of course, I did not expect we would come to an understanding regarding fundamental problems. Indeed, I was certain that my old-fashioned view of what Monism should be, could nowhere find favor with your more modern ideas. But I failed to foresee that you would be able so completely to expose the absurdity of almost every sentence in which I endeavored to convey my thought, or rather the confusion of thought of which you have superabundantly convicted me. No wonder, that, after so universal a deluge of reproof (*Sündfluth*), I find myself stranded, as you say, "in a vast labyrinth in which I have lost my way"; and, worst of all, without any species of thought saved for future generation.

Often before misgivings overcame me, that, in the philosophical isolation in which I am passing my days, I was losing the guiding thread that leads out of the maze of contradictory opinions to progressive and consistent views. But from time to time kind friends were good enough to reassure me to some extent. Not long

ago the Editor of *Mind* took occasion in the course of a discussion on "the psychological theory of extension" to remark: Dr. M's abode "is not too remote for him to watch everything that goes on across half a continent and a whole ocean." "Everything" may have here meant only the general current of what is going on in England, though I was flattering myself, that I was watching with equal concern the main drift of German, French and Italian thought.

This—I am now forced to admit—turns out to have been a fond illusion. I must evidently be color-blind to what you would call "the modern and most progressed phase of science." Or this phase of science must be wholly "beyond the depth" my mind is capable of fathoming. Appealing then to you as teacher of such advanced science, you will perhaps not grudge the pains of once more explaining in plain terms the nature of that "modern psychology," with which—as you tell us in No. 24 of *The Open Court*—you "became acquainted during your stay at La Salle"; the psychology which has led you from "Metaphysicism to Positivism," and which you now frequently invoke in support of your monistic conception of the world.

Though you name Ribot and Hering as having initiated you into this modern phase of science, I cannot see that their method of research differs in any way from the one we have all along been conversant with as that followed by what is generally called "physiological psychology"; a method whose essential characteristic is to be frankly *dualistic*, to use openly "both inward and outward experience," as Ribot himself puts it in chapter I. of his "Diseases of the Will." And the dualistic character of his method is just as clearly recognized by Hering. In his celebrated essay on organic memory, which inspired Haeckel's theory of the "Perigenesis of the Plastidule," he plainly calls the observed concomitancy, obtaining between molecular brain-motion and states of consciousness, the "dual aspect of organic life."

We observe outwardly a material process, inwardly a corresponding conscious state, both originating, varying and waning concomitantly. We conclude that these two sets of wholly disparate events must somehow hang together. But how? This is the essential question whose solution would determine either the fundamental oneness or the fundamental duality of body and mind; would land us for good either in Monism or in Dualism.

As to whether or not the "two variables, matter and consciousness, are connected with each other as cause and effect," "we do not know anything about it." This declaration comes dangerously near being a profession of dualistic Agnosticism. Yet it is, what Hering, one of your principal teachers, says about the connection of the two disparate modes of existence.

But strangest of all, not only your teachers, but you yourself explicitly adopt the *dualistic* standpoint necessarily involved in the incommensurability of the inward and the outward experience, of the material process and the corresponding mental state, of the consciousness of things and the things themselves. In your article on "The Unknowable" *The Open Court* No. 23 you say: "Cognition means nothing more or less than the correct representation of things in psychic images and ideas; and things are knowable because they can be mirrored in the brain of reasonable beings."

In what does this statement differ, otherwise than verbally, from what I have always sought to prove, and what I have dogmatically expressed in *The Open Court* No. 20; namely, "that our percepts faithfully represent the sundry characteristics of the outside existents which are affecting our senses; and that, so far as this is the case, the outside existents are thoroughly well known to us, belonging in fact to one and the same order of being or cosmos as ourselves;—a cosmos all parts of which are interdependently connected by natural links?"

This point-blank declaration concerning the representative character of "psychic images" is however—as I am fully aware—

only a dogmatic assertion of what I believe to be the true state of things. Consequently, you cannot expect me to ascribe a higher value to your equivalent assertion. But the assertion itself, far from being monistic, is on the contrary plainly dualistic. It acknowledges the existence of psychic images in our brain, and the existence of things outside our brain represented by these psychic images. The genuine monistic problem has hitherto consisted, and does in my opinion still consist, in the task of actually proving, that, though the psychic images of things seem to differ *toto genere* in substantial consistency from the things represented, yet both orders—that of ideas and that of things—have nevertheless their origin and being in one common nature.

You seem to think, that in order to establish Monism it is sufficient to declare, that cognition faithfully represents a cosmos of which it is itself forming part. I would like to know which kind of "modern psychology" bears you out in this summary method of procedure. I know of none, not even that of Dr. Abbot, which rests on the arbitrary assertion, that our percepts are in all reality identical, geometrically congruous, with the outside things perceived. He spurns the notion of the psychic images merely "*representing*" the outside things.

The brilliant, all too soon departed, scientist and philosopher, whom in the enthusiasm of recent discovery you call "one of our most profound thinkers," attempted—as you are no doubt aware—in an article published in *Mind*, 1878, the solution of the genuine monistic problem on the old-established, and in your opinion antiquated lines. He endeavored to prove, that those horridly agnostic bugbears, the things-in-themselves, the *very things which you yourself agnostically confess of knowing only as represented in psychic images*, that these things known only in their psychic representations are made of the same stuff as the images by which they are represented. For instance, that the candlestick out yonder consists of the same mind-stuff as its image in my brain. In a discussion on the subject, published in *The Index*, December, 1885, I tried to detect the flaw in Clifford's argument, and to show that the candlestick cannot possibly consist of mind-stuff.

Edmund Gurney in an article on "Monism," (*Mind*, No. 22) attacked, in connection with Clifford's mind-stuff theory and Spinoza's absolute substance, the same problem of mind and matter, but likewise from the antiquated point of view. He says: "Your brain with its movements corresponding to, yet wholly unlike your feelings, is the sort of matter in respect of which that dualism (of mind and matter) first presents itself in our day as an urgent philosophical problem. The attempt at transcending the dualism have of course made up a great part of the history of philosophy."

Will you then kindly in the light of your more modern and progressed science inform us of what stuff the candlestick is really made? Does it consist of mind-stuff? matter-stuff? or any other stuff? or of no stuff at all?

And will you tell us also whether the psychic images and the things represented by them are identical or not identical in constitution? And, if identical, in what way? in ideal constitution? in material constitution? or in what other mode of constitution?

These are questions that a thinker in possession of a monistic philosophy can have no hesitation whatever in definitely answering.

Your kind gift of *Fundamental Problems* and *The Ethical Problem*, which I hereby gratefully acknowledge, shows that you do not regard as altogether hopeless the stagnation "in the phase of thought in which I have become stationary"; that, though my thought belongs to "a past period in the history of philosophy," I may possibly by means of your friendly assistance gain a glimpse of the serene realm of settled questions, in which all difficulties are overcome "with which human thought was then struggling."

EDMUND MONTGOMERY.

II.

REPLY BY THE EDITOR.

I AM glad to hear and to have it testified to by competent authority that Dr. Montgomery keeps himself *au courant* with English, German, French and Italian literature. I do not think that the Doctor suffers under a fond illusion when he believes himself upon the whole extraordinarily well informed as to the progress of science. Very likely he is much better informed upon many subjects than I am. I only meant to say that a progress had been made in certain quarters of scientific research which has escaped his attention, and unfortunately those topics formed the subject of our discussion. However, I have never doubted that a man of so unusual ability, extensive knowledge, and broad interests as Dr. Montgomery, keeps himself, at least in his specialties, *au courant* with the literature of the day and grows with his time.

Dr. Montgomery I hope does not expect me to say anything concerning the philosophical position of Professor Hering, Professor Haeckel, and M. Ribot. I see no use in prolonging our discussion by investigating whether these savants are monists, or dualists, or agnostics.

I am much obliged to Dr. Montgomery for having called my attention to his article "The Dual Aspect of our Nature." I read the article with great pleasure and was exceedingly interested in his skilful attack upon Professor Clifford's position "that the candlestick out yonder consists of the same mind-stuff as its image in my brain."

Dr. Montgomery having stated his opinion in the article alluded to, asks me for my opinion. My opinion is stated at some length in the article "Feeling and Motion" in Nos. 153 and 154 of *The Open Court*. There Professor Clifford's position "On the Nature of Things in Themselves" is briefly recapitulated and commented upon.

Professor Clifford calls the elements of which the thinking subject consists, "mind-stuff"; and he arrives at his conclusion (viz., that the candlestick, a picture of which appears in my brain, must ultimately consist of the same stuff as the brain image) in a mathematical way by employing the rule of three. This is the same truth which was expressed in *Fundamental Problems* by the phrase "Nature is alive," which means that inorganic nature cannot be absolutely dead matter; it contains the conditions of developing the psychic life that in a further evolution appears in animal organisms.

Speaking of the basis from which Professor Clifford starts, Dr. Montgomery declares that "the untruth of this bold assertion is so patent, that we might safely reject without further examination any doctrine based upon it"; and he adds concerning Professor Clifford's conclusion which is quoted in full pp. 2435 and 2436 of *The Open Court*: "The hollow mathematical sophistry of this 'rule of three' argument is easily exposed."

Dr. Montgomery, it seems to me, has in one point misconceived Professor Clifford's view. Dr. Montgomery says: "Mentality is the product of organized vital activity," and he objects to "the strenuous but vain endeavor to discover mind also in inorganic nature." It must be remembered, that Clifford's term "mind-stuff" does not designate "mind" in the sense of "mentality." It does not mean the organized mind of man, but the elements from which feeling and consciousness have originated. Professor Clifford does not find "mentality" in unorganized nature; on the contrary, he maintains that the rational develops from the irrational. His mind-stuff, as far as its elements are concerned, is in its original condition *not* endowed with mentality.

* Professor Clifford does not use the expression "Thing in itself" in the metaphysical sense, as the Noumenal, the Absolute, or the Unconditioned. He uses the term in a peculiar way, and his statement cannot be taken as favoring any kind of mysticism, dualism, or hyperphysicism.

It may be that, in the main point, Dr. Montgomery more agrees with Professor Clifford, and perhaps also with me, than might appear from the controversial attitude in which our opinions have been exhibited.

The three articles, viz., Professor Clifford's "On Things in Themselves," (*Mind*, No. IX.) Dr. Montgomery's "The Dual Aspect of our Nature," (*The Index*, Dec. 24, 1885,) and my own, "Motion and Feeling," (*The Open Court*, Nos. 153 and 154,) are easily accessible to our readers, and we conclude the controversy on the subject by recommending a comparison of the different conceptions.

CORRESPONDENCE.

"THE AFRICAN IN AMERICA": ITS COMPLEXITIES AND PERPLEXITIES.

To the Editor of *The Open Court*—

I agree with Prof. E. D. Cope that the pure African has a peculiar, and in some respects a sui generis, organism. The African in the United States now, is much superior in the aggregate to his ancestors, who came over from Africa in slave ships from 1620 on till the end of "A Christian broker in the trade of blood." He is a citizen and voter in the Union and "entitled to all its rights and immunities." His life, his labor, his hopes, and aspirations: all his interests are diffused among and interwoven with our customs, laws and institutions. His religious, educational, and property interests are all planted here. Among the colored people there is every degree, proportion, and mixture of white and black blood. How many of them are pure Africans?

There are at least 100,000 of these so called Africans, who are educated and have from \$1,000 to \$1,000,000 in property. Would they go to any part of Africa just to please Prof. Cope or me? I wish equally with him they were elsewhere,—but they are *here*. Can we consistently with justice and constitutional rights force them to leave us?

Prof. Cope deprecates the action of ignorant voters. So do I. Still more do I deplore and denounce the intriguing dishonesty, the heartless, unscrupulous scheming of the educated (?) few who pervert their intellect, to mislead, deceive, and plunder the stupid and ignorant wealth-producers, whether priest, politician, or plutocrat, whether by church or state, through its educated leaders. "O it is excellent to have a giant's strength, (education—brain-power,) but it is tyrannous to use it like a giant." It is this class of men—men who say "The people be d—d," and act it—who are menacing this Republic and who are more dangerous than the African. Let them be sent somewhere, or use their mental power for just and human purposes. You do not want to be "governed by the non-voting population." I do not want to be governed by any power any further than by "the consent of the governed," and to protect and defend me in the "pursuit of happiness." Our so-called government has deteriorated and degraded into a monopolizing, privileged aristocracy and plutocracy.

If you eliminate the African for his tendency to destroy our Republic, there will still be many Jonahs, equally dangerous, to be cast overboard from the Ship of State, now struggling with tremendous winds and waves.

The subject of Heredity has been the burden of my mind, the subject of my tongue and pen for fifty years, and I am glad Prof. Cope appreciates it. Most of our leaders in education, or Church, or State are lamentably ignorant of, or ignore, the subject of human parentage. No society, government, or association can be higher, better, healthier, or happier, than the average mental and moral development of its members. The significance and paramount importance of this truth is contained in Christ's words: "A corrupt tree cannot bring forth good fruit, nor a good tree produce evil fruit." If we would rid the world

of imbeciles, criminals, and invalids, we must stop producing them. To me it is the climax of all human sins to bring into being those who can neither be educated, healthy, nor happy. Heredity should be an important topic in every curriculum. It should be a national affair. "What shall we do to be saved?" I heard regeneration for seventy years. It is time, in the order of human progress, to omit the *re* and talk and write about *generation* of human beings that are worth saving.

COLUMBUS, KAN.

J. H. COOK.

FOURTEENTH ANNUAL CONGRESS OF THE AMERICAN SECULAR UNION.

We have received from the American Secular Union a notice, which reads as follows:—

The Fourteenth Annual Congress of the American Secular Union has been appointed by the Board of Directors to meet at Portsmouth, Ohio, on Friday evening, October 31, 1890, and to continue its sessions on the Saturday and Sunday following.

The meetings will be held in the Grand Opera House, corner of Sixth and Court streets, and the orchestra of the establishment has been engaged for the occasion. Due notice will be given of the proposed reduction in railroad, steamboat, and hotel fares.

Portsmouth is situated on the Ohio River, one hundred miles east of Cincinnati, and one hundred miles south of Columbus, and has extensive and convenient railway connections with the whole country. It is a port of foreign entry, and is distinguished for its numerous and magnificent manufactories. It has a population exceeding fifteen thousand (15,000), has twenty churches, the Ohio Military Academy, and a splendid system of graded schools. The Ohio Valley Fair is held there annually, and several English and German papers, daily and weekly, are published in the city.

The members and friends of the American Secular Union are sure of a hearty welcome, not only from our enterprising local auxiliary, but also from the citizens at large.

The object of the American Secular Union, as is well known, is to secure the total separation of Church and State in fact and in form, to the end that equal rights in religion, genuine morality in politics, and freedom, virtue, and brotherhood be established, protected, and perpetuated. While we unite on what is commonly known as the 'Nine Demands of Secularism,' we propose to emphasize the following at the coming Congress:

1. The equitable taxation of church property in common with other property.
2. The total discontinuance of religious instruction and worship in the public schools, and especially the reading of any Bible.
3. The repeal and prevention of all laws enforcing the observance of Sunday as a religious institution, rather than an economic one, justified by physiological and other secular reasons.
4. The cessation of all appropriations of the public funds for educational and charitable institutions of a sectarian character.

The American Secular Union is strictly unsectarian and non-partisan in both religion and politics, but will use any and all honorable means to secure its objects as above stated. It is not either publicly or privately committed to the advancement of any system of religious belief or disbelief, but heartily welcomes all persons, of whatever faith, to its membership, on the basis of "no union of Church and State." The word 'secular' is here used in the broadest sense, as applied to the State, and not to any system of religion or philosophy.

To discuss these questions in an orderly and friendly manner, and to devise ways and means to promote these objects, let us come together at this Congress, as Free-thinkers, Spiritualists, Unitarians, Universalists, Free Religionists, Quakers, Progressive Jews and Liberal Christians, and, laying aside our peculiar views on re-

ligious questions, unite as American citizens on the one broad platform of *no union of Church and State*, and the complete administration of our secular government on purely secular principles.

The National Reform Association, having for its object the establishment of Christianity as the religion of the State by constitutional enactment: the American Sabbath Union, working for the enforcement, by legislation, of the Jewish and Puritanic Sabbath on our free citizens; the Women's Christian Temperance Union, endorsing the platforms and policy of both these organizations; the churches, both Catholic and Protestant, insisting through their ecclesiastical bodies upon the complete exemption of church property from just taxation, as well as the appropriation of public money for religious schools and other sectarian institutions; all these, and many others which might be mentioned, are imperiling our constitutional liberties. Every true Liberal and Patriot, whether man or woman, should feel called upon to aid in organizing an effective opposition to these nefarious schemes.

Due notice will be given of the selection of eminent speakers from all portions of the United States and Canada, and a free platform will be given to all persons who may have a word to say for pure state secularization. All, without exception, are welcome to this Congress in the wide-awake little city in the valley of the beautiful Ohio.

BOOK NOTICES.

An Indignity to our Citizen Soldiers, a sermon preached in the First Parish Church, Cambridge, June 1, 1890, by Edward H. Hall. The subject of this sermon is the pension legislation of the last ten years, as to which Mr. Hall declares that it "is the most disreputable business in which an honorable nation could engage; that it carries in itself all the elements of corruption, hypocrisy, and demoralization; that it is not called for by patriotism, by charity, or by statesmanship, that it is a burlesque upon statesmanship; that it is a libel upon charity; and that it strikes the most cruel blow at patriotism which that noble sentiment ever received." An appendix is added giving statistics of pension legislation and expenditures, from which it appears that the total amount paid in the Civil War pensions to the end of the fiscal year June 30, 1890, was \$1,009,466.980.

The Rev. H. Higgins, M. A., Chairman of Sub-Committee, Liverpool Free Public Museum, has sent us a copy of his address to the Museum's Association, at their meeting, held in June last at Liverpool, (England.) The address, after giving a sketch of the life and work of the "Father of Museums," Conrad Gesner refers to the appliances at the Museum of Liverpool, and the principles according to which its specimens have been arranged. Mr. Higgins dwells on the *new knowledge* of which evolution is the "crowning characteristic," saying finally "the conclusion cannot be far away; that the highest aim of work in public museums is not—however ingeniously—to multiply facts in the memories of visitors, but to kindle in their hearts the wonder and the loving sympathy—THE NEW KNOWLEDGE—called for by every page in the remotely-reaching annals of nature." We are glad to see that Mr. Higgins gives in this relation a quotation from *The Open Court*.

We have received *Circular Letter No. 1*, issued by the Commission, appointed by the State of Pennsylvania, to consider the question of coal waste in that state. The Commission being desirous of making the investigation as comprehensive and as exhaustive as possible, wish to obtain the results of all the best practical experience upon the subject, so as to diminish waste in future as far as practicable, and to encourage the utilization of what are now waste products. The Commission invites a full expression of views upon the subject. Information as to the particular questions to be considered can be obtained on application to the Chairman of the Commission, Mr. J. A. Price, Scranton, Pa.

The Open Court.

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THE ORIGIN OF REASON.

NOIRÉ'S THEORY AND ITS PLACE IN THE HISTORY OF PHILOSOPHY—THE LOGOS.

BY T. BAILEY SAUNDERS, M. A. (OXON.)

V.

With so much by way of preface, Noiré proceeded to the consideration of his own theory by giving us at some length a description of what a word or sign really is in its nature and function as the expression of thought. He took for granted that reason is as impossible without speech as speech is without reason; a position which he declared to be evident enough when we consider that, if we are wholly dependent on sensation for the content of our knowledge, thought implies some such sensible basis as the word or sign gives us. And this word or sign may best be described as a "means of knowledge," i. e. it affords us a way in which beings endowed with will and feeling may render themselves intelligible to one another. It is therefore an act of will; and the whole difficulty lies in seeing the precise point at which a sound that the will has produced comes to have a meaning for others. The will must of course express itself in relation to something that is presented to the senses; and the cry which it utters is itself a sensible (audible) presentation of a purely temporal character, the immediate relation of which to the will makes it admirably suited for acting as the sign of visible presentations. The question then as to the origin and development of language is simply this: how did a particular audible presentation, produced by the will, come to be invariably connected with a particular visible presentation in the external world? For it is clear that where both the cry and the object to which it relates can be conceived of as separate and distinct, and can each recall the other, we have the commencement of language. Hence the great part played by the word or sign; for the more independent it is of the visible presentation to which it relates, the more it is a pure act of will, and the greater its facility for being reproduced. This is the subjective side of the word. Its objective importance consists in the fact that it makes society and social development possible, and brings the reason of one within the reach of all. Without language society is impossible; without social institutions we should be as the beasts of the field. But the mere expression

of the will in the utterance of a sound has no meaning except in relation to some objective presentation, and it is only when the sound and the object to which it relates are connected in some way that the one can always recall the other.

This connection is explained in Noiré's philosophy of language as consisting in creative action. Men engaged in some common activity relieve their feelings by the utterance of cries at the same time as the product of their work is growing under their hands. Sailors, for example, almost invariably accompany their work with a peculiar kind of cry. The sound would tend to become distinctive of the particular action which called it forth, and would connect the subjective activity with its objective product. It would thus form the medium between the will on one side and the visible presentation on the other, and so receive a definite meaning.

And the next step which the word or sign has to take is evident. It must act as the medium between all the visible presentations which it recalls; and in the precise degree in which we are able to separate and bind together these visible presentations, can we be said to possess Thought or Reason. The more the sound is connected with the visible object, and the more it loses its original subjective character, the greater the advance made towards a general application of it to all the objects which it recalls. Thus the manifold of sense presentation is brought under the unity of the word or sign, and we have reached, from the subjective side at least, that which constitutes the essential nature of a general idea. For all the particular effects of our creative activity possess the one common element of having been produced by the will, which being recognized as acting alike in all, furnishes that unity of view which a general idea demands. And as the subjective nature of the operation recedes and leaves the objective effect apparent to the sight, the latter becomes invariably bound up with the last residuum of the will, i. e. the sound which accompanied its exertions. The only reason that can be given for any particular sound becoming representative of a particular action is that both were produced at the same time: the mighty power of association is sufficient to explain their connection. And as soon as some sound has become in this way connected with a

particular operation, the essential resemblance of all like operations is recognized by what Noiré called an ideal intuition, a faculty which is as much at work today in the varied forms of art as it was at the birth of language. The very perception of any external object is a mental synthesis of the different impressions of sense; and the connection of the visible product of our labor with the labor itself, is due to that binding power of the mind which perceives *intuitively* the causal nexus. The union of both these elements took place in the cry which accompanied the work, a cry which can have had no other than a predicative meaning.

A little consideration of the different senses of Sight and Hearing may help us to understand the part that each plays in the birth of language. Sight has to do with that which is presented in space and hearing with that which is presented in time. There is nothing temporal in what we see, nothing spacial in what we hear. Sight and hearing are utterly distinct in their nature, and are bound together only by the will. We can no more hear an object than we can see a sound. An object may assume various shapes and yet remain essentially the same: a hole, round, square, or oblong, in earth, sand, or rock, is still a hole. And so a word which has come to have the meaning of hole may comprise various forms. There is unity with diversity in the object, and unity with diversity in the word; and it is the combination of both which gives us a concept. And this binding force, or *logos*, is the main attribute of our reason. The object can only be particular; the sound can only be particular; but once the meaning of what we see has been discovered by *ideal intuition*, says Noiré, once the meaning has been expressed by a sound, once the object has been named, the generality of its nature is affirmed, and we have a concept.

It is important to remember the predicative nature of the cry. Man, Noiré proceeded to argue, is the only animal which can say something. Sympathy and antipathy, pain and delight, find expression in brutes: but they assert nothing, they can form no judgments. Men look upon the common work of their hands: and the common cry denotes that the object has been reached, and that too by a common effort of which all are conscious. 'The hole which we see here has been produced by our common activity.' The consciousness of previous activity and the sight of the object which that previous activity has effected, are both merged in the expression of the will which accompanied the work. Here, then declared Noiré, we have the true notion of causality, with the indispensable elements of time and space. The object is wholly spacial in its nature—the activity is wholly temporal: the cry which accompanies it is that which binds both together. The

cry is thus predicative—that which we see before us is the result of our labour. At first no sharp distinction would be drawn between subject and object. The unity which underlies all predication would be the most prominent thought. The cries for the activity as well as for the object which it produced would be identical. Here is the cell which is to develop into the perfect structure of language; here is the protoplasm from which reason is to be evolved. The consciousness that the activity is ours and is reproducible at will, exists in others as well as in ourselves. Here, then, is the essential of reason, its universality. The will as a cause has been objectified in that which it has produced.

But, it may be said, do not brutes do the like? do not their wills produce an object too? Does not the mole construct its hill?—the bird its nest? Does not the latter give vent to its feelings by uttering a chirp of joy when the work is complete? Such an objection Noiré met by saying that the activity of the brute is always the same, the product of its work nearly identical. Still the bird that has built itself a nest and is able to find it again as its own, does possess something like that faculty which in man leads him to recognize the product of his work. And the step from the one to the other is simply that in the latter case a conscious separation of the product from the work is possible. To brutes there is, as far as we know, no consciousness of the will as a universal cause of every kind of activity. There is no organ in the brute comparable to the human hand for adapting itself to a variety of work. The will is the root of all activity, and lies at the bottom of our conception of the universal. The will can only become conscious of itself by manifesting its power—it must work to be felt: in its pure existence it is unknowable. It becomes visible only in the object which it brings into being, and *it lends to that object the character of universality*. And as the object produced by the will unites in itself the three forms of time, space and causality, it comes into being under the influence of ideal and wholly universal conditions. The cry which accompanies the process is associated with the product, and receives thereby an universal as well as a predicative character.

As far as we know, the brute is unable to form any notion of a *causal connection between external objects*, and this it is exactly which forms the dividing line between him and man. A dog associates pain with the sight of a whip held in a menacing position, satisfaction of hunger with the sight or smell of a bone. In all cases, what we may be allowed to call his judgments are purely judgments of feeling, and are therefore entirely subjective. Universal judgments on the contrary are always objective: any admixture of subjectivity would make a judgment so far particular.

A judgment wholly objective, affirming a causal relation between external objects is the germ of reason, and Noïré claimed that his theory showed how such a judgment could come about. He was strengthened in his belief by the results of philological science mentioned above, according to which the ultimate roots of language express certain activities mostly of an agricultural and industrial character. For only in such a common activity could valid universal judgments arise.

The will then lies at the bottom of the formation of concepts. The spontaneous cry uttered during the work and at the completion of it, binds together the three elements from which the concept or general idea springs, viz., the consciousness of a common will, the visible manifestation of it in a common work, and the visible product of the activity. Once these three elements are combined, *the chemical action of thought* brings the concept to birth in the mind. Though the will is thus instrumental in the formation of concepts, it is only as it is gradually lost sight of in the object which it has produced that the latter can be looked at with the eye of reason. The particular thus becomes known or named only in virtue of its universality; and the universal has no validity apart from the particular.

And these considerations are connected with one of the deepest questions of metaphysics, very like that popular one as to whether the egg came before the chicken, or the chicken before the egg. Whether is genus or species the prior notion? Plato's answer to this question was that the genus existed from all eternity in the mind of God, and was the cause of the existence of the species, and of our knowledge of it. The modern philosopher explains genus as that which is transmitted by the natural causality of generation, while species is only the visible agreement of externals. Whether the natural causality be explained according to Schopenhauer as the manifestation of the will to live, or according to Kant, as the teleological action as organic nature, it is a necessary hypothesis which we obtain solely from the consciousness that our will can produce effects. Hence the prime importance of the discovery that the roots of the language express certain human activities. For the generality or unity of the activity produces the generality or unity of the effect, and the latter can only be really known by the activity which produced it.

Philosophy tells us that the world is a picture which we ourselves make. Its light or shade, its beauty or ugliness, its meaning or its vanity depends on us and on us alone. There is nothing in the world which we do not put there. True, the material is given us from without, but we have to work up that material into experience. Our whole life, then, is one long creative

process. But besides the creation of every-day experience, there is the creative action of human industry—there are the creations of the poet:

"Forms more real than living man,
Nurslings of immortality."

Both creations give us pictures—the one objective, material; the other subjective, emotional. The combination of both kinds of activity gives us language, poetry, art, which are in the end due to the interaction of the mind and the impressions of sense. One is compelled in explanation to separate these two; but it is as well to remember that the mind is active in every sensible impression. A sensible impression or picture is the subject of mediate knowledge; some external excitation of the senses is necessary for its birth. The utterance of a sound, on the contrary, belongs entirely to the sphere of the will, and is, like the latter, the subject of immediate consciousness. And when these two are combined, when the will gives expression to itself in the utterance of a cry at the same time as it is objectifying itself in creative activity, the visible object or picture is brought into connection with the sound or cry through the will which is the cause of both. The connection between the sound uttered and the activity is purely associative and mnemonic, while that between the activity and the object it produces cannot be looked upon as other than causal. It is important to remember that all this takes place under social conditions. The sound must be a common one; the activity shared by all; the object looked upon as the common work of all. Perhaps in the earliest stages the sound was accompanied by gesticulation, but this would gradually disappear as the sounds became intelligible.

It is obvious that each of the three limbs of the process can form the bond of connection between the other two. Thus the activity plainly brings the sound uttered into intimate connection with the object produced, while the sound determines the end towards which the activity works. The object when completed forms, then, the whole meaning of the activity and the sound which represents it: it forms the point of contact between the material and the mind which works upon it, and renders the latter evident. Noïré summed up the whole matter thus:

"The giving of names is the work of the will; the presentation of external objects is the work of the intellect. All objects are presentations, and become the property of the human intellect only through names being given to them. It was human activity which first brought all objects within the range of universal thought, inasmuch as this latter gave them names. Thus, the tree was *barked*, the fruit was *peeled*, the brute was *slain*, and these objects were then conceived by the community as *wood*, *kernel*, *meat*. Even

what was not within the sphere of activity, Heaven, Dawn, Sun, Mountain, was also looked upon as having been fashioned, and received names with such significations as *vaulted, colored, whirling wheel, pointed*. In no other way could they have been named, for it was only under these notions that they could have become objects of thought."

But all this rests on the hypothesis that reason is impossible without speech. And to show the importance of the question, Noiré declared that the final subjection of the common idea that thought is independent of language will have as great an influence on the theory of knowledge as the substitution of the Copernican system for the Ptolemaic had on astronomy. His argument is based on Schopenhauer's theory of the priority of the will to the intellect, who is only the maid servant to carry out the directions of her mistress. The intellect is only the tool of the will. Common opinion would seem to point to the conclusion that, as we often deliberate before executing our will, the intellect must necessarily be the prior of the two. The ordinary view, said Noiré, rests on the two false assumptions that all we have to do to gain a knowledge of the world is to open our eyes and let experience pour in upon some innate reason which is purely receptive, and that our reason can exercise its power without some material supplied by the senses. To think that there can be reason without the material to work on is like supposing that we can swim without water. If reason is something intelligible, it must be a natural process working with natural means. The true view lies between the extremes of what Noiré called naïve Realism and naïve Idealism. In the first the subjective side of knowledge, in the second the objective, is overlooked. Both are irrational, impossible views of the universe, and no one since Kant can be called a philosopher who puts his faith in either. Kant and Schopenhauer proved beyond question the important part played by the *subject* in the acquisition of knowledge, and Noiré's position, as he himself defines it in the history of philosophy, was to show how indispensable in the same connection is the *object*, which can be known only, he declares, by being named, and reason is impossible without speech.

Language, said Noiré, like all art, is possible only because man is a 'social animal.' The need of expressing what is in us, the irresistible tendency which drives us to communicate our thoughts to others, forms the *raison d'être* of all art. It may be true that all art followed a practical aim in its origin; and we may be sure that language would not have arisen unless there had been some necessity for it. Primæval man, as soon as he was in the social stage, would feel that he must make himself intelligible to his fellow. Any common operation would render necessary a right

understanding of what was being done, an understanding which could have been effected only by means of something akin to language. If these are the conditions under which a concept could spring to birth in the mind of primitive man, it would have been well if Noiré had investigated a little more closely the exact connection between the possession of linguistic signs and the social character of primæval man; for it is obvious that some form of *communication* would be necessary in any, even the most primitive, social system. And further, what explanation can, on this hypothesis, be given of the fact, which no one can doubt, that the lower animals possess some vague code of signs intelligible to their kin, and that many of the smallest animals,—ants, for instance,—are in the habit of working together in a way which forbids us to deny that they too may be said to present certain 'social' aspects.

According to Noiré's theory, language had its origin in the common cry of individuals engaged in a common activity. The activity was presumably of such a nature as to be indispensable to existence; it provided for certain necessities which were felt by all, the satisfaction of which would be regarded as a common good. Social life gave many an opportunity for the common satisfaction of common necessities. Besides the internal bond of union, there might be the need of uniting against dangers from without, which would bring into prominence the social aspects of human life. The interest which a society would have in the carrying out of its work, in the preservation of its existence, would furnish the essential characteristic of reason as the striving after unity. General or common ideas could only originate in a society which worked toward the realization of some common aim. That the individual was swallowed up in the society is shown by the striking fact that 'eating'—surely one of the best known traits of the individual—came from a root which meant 'dividing.' One's dinner was originally only the share which fell to one; and thus the prime necessity of life was looked upon as something for which one was dependent on society. Beyond the fact that man is a social animal—a fact long ago stated by Aristotle—Noiré cannot go, and he takes it as the ultimate explanation of his theory of the origin of language and of reason: for unless the cry which is uttered appeals to some sympathetic chord in the breast of one's fellow, and is so understood to have reference to an end which is desired by the community, there will be no ground for the structure of theory which he has raised.

As yet, no notice has been taken of a set of words which must have lain at the very beginning of all languages, viz., demonstratives and pronouns. Noiré's explanation of the origin of these two sets of words,

which he regarded as being at first indistinguishable, is that just as the gradual receding of the subject gave us the concept in its most developed form, so any prominence given to the subject would bring into view the individualistic elements of language. Here he came into friendly antagonism with Prof. Max Müller, whose opinion is that the great stream of language may reasonably be held to have had more sources than one, and that many demonstratives probably had an independent origin in sounds accompanied by gesticulation.* This is not the place to discuss the question at issue, but occasion may be taken to remark that Noiré does not agree with this latter view, and regards the demonstratives as latent in the predicative roots.

So too with regard to Number, there is no difficulty in conceiving of it as being closely connected with the notion of 'dividing,' 'separating.' Apart from this, the fact that we possess two hands and feet, two eyes, ears, and nostrils, would seem to point to number as being something of which the earliest gleam of thought would be cognizant.

The metaphorical life of language was held by Noiré to be sufficient to explain the origin of words denoting color, sound, taste, feeling, etc. The first notion of 'the colored' would arise when the savage smeared his body with earth or the juice of plants. This would pass into the further notions of 'the light colored,' 'the dark colored,' and these in their turn might have been used to denote 'day' and 'night.' The names of sounds lend themselves most of all to the onomatopoeic theory of the origin of language; and it is useless to deny that this theory does explain the existence of many words denoting sounds; but the sounds produced by human activity were probably the first to be named. As for taste, 'bitter' is nothing but 'biting'; and 'sweet' is connected with the same root as 'soft,' 'powdered,' 'ground.'

The growth of concepts was also in Noiré's opinion greatly favored by the comparison of opposites, and, indeed, in ultimate analysis rests on it. Individual existence is only possible in opposition to social existence; and the consciousness of the latter can only rest on its opposition to individual will. The social instinct is, in men, the direct analogue of the inner force of nature, and all our limited faculties can do is to observe the way in which each works. Just as we know some particular manifestation of that force in nature only by its opposition to the great force working underneath the face of things, so can an individual will be known only by the opposition it makes to the common will underlying collective humanity. The consciousness of this common will is inseparably bound up with the consciousness of individual will.

The coalition of individual wills is the necessary preliminary to a common understanding, to the birth of language. A much later development lay in the distinction of the self from the varying states of consciousness through which it passes; and only in this stage could the inner life of feeling find adequate expression.

[TO BE CONCLUDED.]

THE SIGNS OF THE TIMES.

BY R. W. HUME.

WHETHER the full and entire doctrine of evolution, as generally held by scientists, be correct or not, it is certain that constant change is written over the face of nature. Systems, like their human creators, have their periods of youth, middle age, old age, decay, and will have their terminations. Even the various religions of mankind are subject to similar vicissitudes. There are several changes or growths specified in the Bible, marking eras in the forms of faith, which, commencing with Judaism is now known as Christianity. We are told in the book mentioned that, though when in paradise, Adam walked and talked with his God, it was not until Seth's time, or about one hundred and fifty years later, that "then men began to call on the name of the Lord," Gen. chap. 4, v. 26. Some ten centuries after that, in what is called the patriarchal covenant, Noah was instructed by his Deity that "Every thing that moveth shall be meat for you," Gen. chap. 9, v. 3; but, when another thousand years had passed, that permission was abrogated in the 11th chapter of Leviticus, in which a long list of beasts, birds, fishes, etc., were branded as unclean and not fit to be used by man for food; lastly, after the lapse of fifteen centuries more, appeared Jesus of Nazareth, who quoted several of the Mosaic laws, condemned them, and substituted others in their stead. Thus it will be seen that change is written even on our religions; that the stern policeman "Time" compels even the creedal vagaries of humanity to "move on." For it would be easy to show that all the noteworthy religions of the world have been subjected to similar alterations.

It is true that the change, or growth, or development of every thing in nature is usually so constant and regular as scarcely to be perceivable, yet we know that there are times when sudden extraordinary changes are instituted of special importance. Some such have occurred in nature. In the page of history that we possess, no very striking sudden transition is recorded with regard to the development of our race, but that such may occur, it is claimed, is neither impossible nor improbable.

It is submitted that at this time there are indications that an event of such a character is about to take

* Cf. "Lectures on the Science of Language," Vol. I, p. 310.

place. There are many circumstances that warrant such a conclusion. Many believe that the vast additions to man's destructive powers will tend to the entire extirpation of the barbaric method which from time immemorial has been the means resorted to for the settlement of national differences; that the equally vast augmentation of man's powers of production will surely, when properly supervised, relieve the millions from much of the arduous toil now requisite to sustain a high grade of civilization; and lastly that the decline of the acerbities of theologians of all creeds, as exhibited by priesthoods generally, will tend to permit the various races of mankind, now united by the ties of commerce, to establish that harmony on earth which is so requisite for the welfare of the human race. Such manifest advances, it is claimed, instruct us that War, Slavery, and Superstition, the real foundations of the so-called civilization of the past, are now each and all of them threatened with near-at-hand terminations.

Such being the case, it is not surprising that leading men in Europe and the United States have of late prophesied that great changes, affecting man's welfare are impending; that better times may be expected and the incoming of a higher order of civilization than at present exists. Not long previous to his death, Victor Hugo said:

"We are about to enter on the great centuries, for the present age is imbued with the spirit which constitutes an apostolate, and opens up bewitching vistas. In the twentieth century war will be dead and likewise malice; bigotry will be dead; despotism will be dead, and the gibbet buried. But mankind will live in harmony; for all men there will be but one country, the whole earth, and for all but one hope, the whole heaven. All hail, then, to that noble twentieth century, which our children shall inherit."

Of a somewhat similar character are the words lately uttered by the Rev. Dr. Talmage. They were:

"The nineteenth century is departing. We are in a few months to enter its last decade. That last decade will be the grandest—mightiest—decade in all history. I am glad that it has not yet arrived, because we want the whole country to get prepared for it. May we all live to see that the last ten years of this century, that last decade, that last fragment of this century is to be its most important part. Standing here to-day in the presence of this august assemblage, I propose that we get ready, that we plant our batteries, that we lay out all our plans in the remaining months of the present decade, for the last decade of this nineteenth century. We have all the necessary machinery now for the work. When the coming decade reaches its coronation, the crowned centuries will cast their crowns at its feet, and that one decade, that final decade of our century, will be the most important time since the morning stars sang together."

It is not believed that either of the authorities quoted claimed what may be called "direct inspiration," but deduced from past and present circumstances the changes mentioned as likely to occur in the future. Believing that to be the case and assuming that we are in a preparatory era, let us glance at a

few of the important movements that have occurred at and since the birth of our nation.

That in itself was a mighty advance. It was the first born of a series of revolutions that have since convulsed and at the same time benefited the nations, for we may claim the great French revolution as one of the results of the great state papers which then were issued by our forefathers. In Europe, at that time, the idea of a people governing themselves was regarded by statesmen as the impracticable dream of inexperienced men—it is now a demonstrated fact. The statement in the Declaration of Independence "that all men are created equal" was laughed to scorn by the aristocrats who ruled and robbed the millions in Europe; notwithstanding, of late, the correctness of the position taken has there been practically admitted. At the time it was uttered, in the British Isles the ruling power was the House of Lords; it now no longer dares to oppose the strongly expressed will of the House of Commons. In Russia, the emancipation of the serfs has largely diminished the power of the boyards or nobles. It may truly be asserted that even the lines of demarcation that were formerly drawn between the races of human beings are being gradually obliterated.

That "governments are instituted among men deriving their just powers from the consent of the governed" is also partially endorsed by several great nations in Europe who have instituted universal male suffrage, while the words in the Constitution which define, and, if regarded by the states, would protect the religious liberties of all our citizens, viz., "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof," have broken open the doors of the British House of Commons and admitted to seats there the Catholic, the Jew, and the Atheist.

These advances in governmental matters are due to the teachings of the Republicans of 1776, and they are so important that they may well be scheduled as the first footprints of the Revolution of the Ages through which, it is maintained, the civilized world has been passing during the present century.

The religions of mankind are next in order. They have not now that dominating force they had even three centuries ago, and the discoveries of late made by geologists have still further weakened the hold that priesthoods formerly held over mankind. The truth of this statement may be seen in the creedal changes that are constantly occurring among clergymen, and in the compelled relinquishment of the cruel punishments by which they all formerly sought, of course in proportion to their ability to use such means, to compel disputants and non-contents to endorse their doctrines.

Such is the present condition of the religious world. Religion is no longer as its name implies, "a binding thing"; and the great increase of crime that degrades the present age is largely attributable to the feeble hold faith has upon the masses of mankind; because, any form of it honestly held and acted up to elevates and purifies those who so maintain it. But the world has passed the age of faith, it now can yield obedience only to the teachings of the known and real, as it finds them written in the book of nature.

Another symptom of the incoming of a new civilization is the overthrow of chattel and land slavery. The holding of human beings in such bondage was not only a grievous wrong to the slaves and serfs, but an insult to and a degradation of all mankind. In the fall of those ghastly evils we all of us took an upward step. It now needs no prophetic inspiration to perceive that we are approaching a time when the claims of property will no longer monopolize the attention of legislators, but the paramount object of their labors will be the protection of the rights of all human beings "to life, liberty, and the pursuit of happiness," as asserted to pertain to mankind in our Declaration of Independence.

Another great advance that man has made during the present century, is the discovery of the true history of our race as printed in the pages of nature's bible. That, and the annihilation of slavery here and in Russia are more beneficial advances than any the world has witnessed for many centuries. In them may be seen the commencements of a grand struggle for the destruction of spiritual and temporal oppression. But it is requisite now to pass from these main movements and glance at the conditions of some of the systems now in operation in so-called civilized communities.

The most important of these is the social system. On that mainly depends the improvement of our race. The great English statesman, Sir Robert Peel, estimated the height of the civilization of a people by their consumption of soap, but a far better indication of the degree of enlightenment possessed by a community might be obtained by a review of the conditions under which women exist therein. Many grand movements has this century witnessed, but none greater than the social reformation which centres in the sustained effort for the enfranchisement of women. Rising in the working class, women first swarmed into the mills and factories and now are to be met with competing with man in almost every line of manual labor. Their better educated sisters, following the example, have stormed their way into the professions, and some of them are to be found taking high stands as lawyers, doctors, and clerics. Their aspirations are

no longer bounded by their homes and limited to family duties, but are

"As broad and general as the casing air."

This change alone is a mighty revolution, pregnant with the gravest consequences; it is impossible to estimate or even to conceive the effects it must produce in the near future.

A glance at the ever recurring bickerings between employers and employed, shows that things in the industrial world are also in a very crude and chaotic condition. The vast improvements in the arts of production by the use of inanimate agents has virtually placed far greater powers in the hands of employers than they formerly possessed, while threatening the independence, and even in some cases diminishing the ability of the workers to protect themselves against oppression.

Consequently, in order to defend their interests, the latter have found it necessary to establish and sustain unions in most trades, and efforts are constantly being made to unite in one body the whole labor force of the cities. Internationalism, socialism, anarchism, the black hand, and nihilism, are all parts of one whole, each of them having for their objective point the elevation of the condition of the toiling millions.

The financial affairs of so-called enlightened nations are also unsatisfactory. In less than two and a half centuries the working of the national debt system has beggared most of the great countries of Europe. Russia, Turkey, Italy, Austria, Spain, and France, are in reality bankrupt nations, and there are others which are but little better. The ancient battle of "The Standard" pales into insignificance before the war in these days over the "Money Standard." The members of the chief money ring of Europe, may well be termed there "The Kings of Kings." It may truly be said that never before was the world so completely under the sway of Mammon. In the meantime no great nation accepts even gold at its treasury as money, but as a commodity, and all national paper issues are merely "promises to pay money." Verily the financial systems now in operation, need remodeling.

Of all our present systems the most corrupt is that of distribution or trade. It is becoming almost an impossibility for a man who deals honestly by his customers to succeed in business. In the cities many trades are gradually becoming monopolized, and the chances for success of independent traders are becoming minimized. Fraudulent adulteration of articles of food and drink have of late called down the anathemas of several legislatures. The historian, James A. Froude, in his inaugural address to the students at Glasgow, thus anathematized the whole system by

which goods are now distributed. He said: "The present system of traffic is too demoralizing to be much longer endured; it rewards men for roguery, and pays them in proportion to their villainy." In his poem "Maud," Tennyson asserts that even the medicines we resort to for health, are adulterated. He thus depicts the present condition of the peoples under so-called civilization:

"And sleep must lie down armed, for the villainous centre-bits
Grind on the wakeful ear in the hush of the moonless nights;
While another is cheating the sick of a few last gasps, as he sits
To pebble a poisoned poison behind his crimson lights."

In addition to the above-mentioned evils over all hangs the shadow of war. About one-fourth of the labor and genius of the people of so-called civilized countries is wasted, or worse than wasted in devising and manufacturing implements of destruction, and practising how to use them effectively. There are at least five millions of men under arms in Europe. That great military nation pagan Rome, in the time of Augustus Cæsar, kept order there with less than 200,000 soldiers. "Might is right," has become the rule everywhere. Weak and simple peoples are victimized by the strong and subtle without scruple. There are no less than four great nations—France, Italy, England, and Germany—that hypocritically claim to be worshippers of the Prince of Peace, who are to-day busily engaged in cutting up Africa. Of course, when it is deemed politic, they will not hesitate to slaughter wholesale the natives of that continent. They can do this, not because they are braver, or that justice is on their side, but because they are better armed and are scientific men killers.

Such is a truthful picture of the present time. All admit that it needs amendment. Even Bismarck has expressed a desire to reduce the army of Germany. But it cannot be done. Force is needed at home by European governments as well as abroad. Titan is groaning everywhere under his load, and the weight of vast armaments in Europe is requisite to keep him in subjection.

But there are signs, every day increasing in numbers, that the fountains of the great deep of an outworn civilization are breaking up, and that we are nearing a flood which will overwhelm it. But, notwithstanding the discontent exhibited by the millions, it is submitted that not by human agency alone will the change be accomplished.

There is such a thing as "Fate," and the wise can sometimes trace its footprints. The gains we have made hitherto in this century have been mainly the results of compulsion. The War of the Revolution was forced on the colonists by the tyranny of Great Britain. Our success in it was beneficial not only for ourselves but for mankind, but we did not engage in it for the latter purpose. The overthrow of slavery and

serfdom were works of necessity, forced by fate on two rulers; neither the American nor the Russian people have any claim to glory in them. The same resistless power is at work now, for it is believed that the present outworn systems will rather collapse from their internal infirmities than be overthrown by the active intervention of human beings. They will fall and perish because their days are numbered, and because now they are no longer blessings, but evils producing results inimical to human welfare. He who watches the signs of the times and the trend of events can readily perceive the necessity for their removal; it is because they stand in the way of the further progress of our race.

Verily the human world is being prepared for a momentous change. Everywhere, in all countries, the toiling millions are qualifying themselves in their trades unions and assemblages of all kinds for a new position, by striving to learn their duties as well as their rights with regard to self-government. That is the first step, other steps will surely follow. True, at present, the results of their deliberations are sometimes conflicting and injudicious, but with respect to education, by their innumerable gatherings and debates they are doing well in their work. Regarded as preparations for an incoming advance, their efforts may be scheduled as both requisite and valuable.

The immense progression man has made in the present century warrants the conclusion that still greater advances are about to occur. Philosophers and scientists differ in regard to what may be in store for us in the future. Hugh Miller despaired of the improvement of the millions, for he exhibited an indelible conviction of the incapacity and degradation of the hand-workers in his book, "My Schools and Schoolmasters." It is questionable whether his reading in the testimony of the rocks that "in the processions of the ages the magnates marched first" had not an effect in inducing him to terminate his existence. The late Prof. Proctor in one of his last astronomical lectures exhibited a picture of a dead planet revolving around the sun; query—"Was it his idea that such an end was approaching that on which we live?" There are other scientists who neither believe in human perfection nor dare to limit the power of nature, who venture to speculate in the idea that the human race is about to be superseded by a superior formation—one above man's power to conceive, much less describe; but probably the more general opinion of the learned world, like those that have been quoted, are that the evils of the present time will be eradicated, that the human race has yet further heights to scale, and that, at the present period it is simply awaiting new developments. The truth respecting the present crisis was, however, well expressed by

Dr. Th. H. Marvin in his lecture on *The Literature of the Insane*: "This age is an inter-civilized age, it lies between two great civilizations, and is at once in the twilight of the old or metaphysical epoch, and in the sunrise or early morning of the new and scientific era."

It is questionable whether, as regards millions of human beings, our present form of civilization is not a complete failure. Such appears to have been the opinion of Thomas Jefferson respecting it. In proof of this, the following extract from his writings on government is given:

"I am convinced that those societies that live without government, enjoy in the general mass an infinitely greater degree of happiness than those that live under European governments. Among the former public opinion is in the place of law, it preserves morals as powerfully as the laws did ever anywhere. Societies exist in three forms, 1st, without government; 2nd, under governments where every one has a just influence; and, under governments of force. It is a problem not clear to my mind that the first condition is not the best."

Whether it be so or not, it is certain that we cannot return to savage life. Men cannot fall back into childhood. What then? If our present form of civilization is inconsistent with our welfare it must be changed. Who is to change it? We are all so demoralized by the workings of our present evil systems that it seems vain to hope that we can accomplish their overthrow. Nevertheless let us trust with Victor Hugo, the Rev. Dr. Talmage, and many other well wishers of humanity, that such a work is about to be performed, and that the statements in their prophetic utterances will be verified for us by the march of events and the progress of our race.

That there will arrive a good time in the future for human beings has been the hope of the wise and good at all times and in all ages. It is testified to in many religious works, and the prophets and poets of many countries have exhausted their powers in their descriptions of the happiness then to be conferred on mankind. Without being so sanguine as to credit that the time will ever arrive when Sisyphus will succeed in lodging the stone on the crest of the mountain, there are good reasons why we may now look forward for a mighty change in the near future that will greatly benefit civilized mankind, and through them all other human beings. Furthermore, it may well be asserted that it is simply reasonable to assume that the prophecies that have been quoted rest on solid foundations, and that the statements in them are partially justified by a fair review of "The Signs of the Times."

THE SEAT OF CONSCIOUSNESS.

WHEN unable to go to sleep, we try to force ourselves to do so by inhibiting all thoughts; we attempt, as it were, to empty consciousness of all its contents. Yet

this is very difficult, for as soon as one thought has been suppressed, another makes its appearance; and if this second thought is refused admittance a third one succeeds in forcing its entrance. A constant battle has to be waged to keep down all mental activity. Thoughts, pictures or abstract concepts, and memories of all kinds rise again and again. We can never attain a state of pure consciousness which is void of all contents. When we succeed in suppressing all mental activity, we fall asleep. Every attempt to think of nothing, no less than every attempt to confine thought for any length of time strictly to one monotonous image or idea, is a kind of self-hypnotization.

When we walk along on a road which exhibits no noteworthy variety to the traveler, we may proceed without observing anything. We walk almost unconscious of our movement. Yet, if the road divides before us, doubt arises in our mind as to which way we shall take. Doubt is a problem that requires settlement, and if it is not settled it causes, so long as the doubt lasts, a state of tension which makes us conscious of the situation. Consciousness is an intensified state of feeling caused through tension. It lies between a want and its satisfaction. Satisfaction not being immediately attainable, feelings are no longer in a state of equilibrium, and it is this tension which concentrates and intensifies feeling into consciousness.

It appears that consciousness never arises without a certain tension. Days spent in an idyllic life flow away almost unconsciously; there is little friction, there are no problems to be solved; there are no unsatisfied wants, or if there are any, they are quickly and easily attended to. There is no need of consciousness, there is not much tension to call it into play, so life passes dreamlike as a tale that is told. The more life is burdened with problems that demand a man's full care and deliberation, and the stronger are his attempts to solve the problems of his situation, the more intense will his consciousness be.

It appears to me very doubtful whether conscious beings could exist in a world—if such a world were possible at all—where the struggle for existence was unknown; for it is the struggle for existence that presents the first and most imperative problems to living and feeling beings.

Man is a creature full of needs, and while attending to these needs he has developed and constantly does develop a not inconsiderable amount of consciousness. If he had no needs he might degenerate into a half-vegetative state of existence like that into which certain parasitic infusoria have fallen, which, their sole wants being fulfilled, cease to exhibit even the most general symptoms of animal life, i. e., free motion.*

* There is, for instance, the female of the bark louse (*Coccinus*) which when fully developed appears as an entirely immovable body, not unlike

We may compare the tension of consciousness originating from an unsatisfied want, to a vacuum. The vacuum of such a want in man's mind causes memories and combinations of memories, old and new ideas, to rush in in order to fill the vacuum. The more difficult the satisfaction of a want is, the more consciousness and intelligence must be developed. For long chains of representative feelings, observations of present facts, the revival of memories and new combinations of memories require much attention. Every thought which has been attended to loses its interest, and the mental equilibrium is restored, unless (as happens usually) the settlement of one problem gives rise to another, thus producing a new tension. If the vacuum were once definitely filled, the tension would cease to draw new thoughts into its sphere. All change would be stopped and a state of unconsciousness supervene.

Consciousness and intelligence work together under normal conditions, but both are quite distinct functions. Consciousness is a concentrated or intensified feeling which often, but not always, accompanies certain motions, sense-impressions, and also intellectual work. We have no states of consciousness that are without any contents. There are, however, sense-impressions, motions, and intellectual functions, which are not accompanied with consciousness. Consciousness, accordingly, is an additional element that sometimes is and sometimes is not attached to certain mental operations.

Considering anatomical, physiological, and psychological facts, the hypothesis offers itself of regarding the Striped Body as the organ in which the additional element of consciousness is produced.

The experiments of physiological psychology by Wundt, Münsterberg,* and others, prove that the paths of unconscious cerebration are shorter than those of conscious cerebration. Mental activity, if its action, like a simple reflex motion, takes place automatically, passes down through certain nerve-fibres, which in their passage through the internal capsule do not enter into the Striped Body.† It is certain that some of these fibres enter the Thalamus, whence they descend to the anterior roots of the Medulla oblongata. Mental activity, however, which is accompanied with consciousness, must take a roundabout way. It needs more time, and we can fairly conclude that the mech-

anism of its action is more complicated. The question thus offers itself, whether there is a special organ, the function of which produces consciousness, and, if we have to look for an organ of consciousness, where must it be located?

We believe that in the Striped Body, (mainly those parts that exhibit an analogous structure to the cortical substance,) is to be found that place which in situation and anatomical conditions answers best to all the requirements that can be made in regard to an organ of consciousness. We suppose that a motor centre in the brain, if irritated, all conditions being normal, will produce motions (as has been experimentally proved); but there are two possibilities offered: 1) the reflex action can descend directly through the internal capsule without becoming conscious, (the path designated in Meynert's diagram as 2. 2.); or, 2) it may first enter into the Striped Body, where the additional element of consciousness is acquired. The different states of consciousness will, in that case, originate in the Striped Body. Yet their nature will depend upon the various nerve-structures from which the irritation of the Striped Body proceeds.

For a consideration of the merits of this hypothesis we adduce the latest investigations of Wernicke, a specialist in brain diseases. He says in his *Lehrbuch der Gehirn-Krankheiten*:

"The caudate body and the third stripe of the lenticular body consist mainly of the same finely granulated glia substance as the cortex. As in the cortex, so here between the ganglionic cells are found large masses of pure gray substance. The fibres rising therefrom are, although medullary, of extremely fine tissue. It is for this reason that the fibres of the caudate body in their passage through the white substance of the internal capsule are marked as reddish tracts, a circumstance that makes it easy to discover their course.

"The interior stripes of the lenticular body possess only slight, if any, trace of these tissues. They consist, as Meynert noticed, almost entirely of purely nervous elements, (l. c., p. 41).

"We must distinguish rigorously between the third stripe containing the main mass and the other two interior stripes. The latter alone can be considered, as Meynert suggests, as an intermediate station. The third stripe and also the caudate body are in no direct relation with the corona radiata. . . . Some fibres of the second stripe can be traced into the corona radiata, but there are comparatively few. By far the greater part of the two interior stripes has no relation to the corona, but remains an internodium of the fibres descending from the third stripe and the caudate body. These two ganglions are the main sources of the radiary fibres in the lenticular body. . . . Thus they form a terminus (*Ursprungsgebiet*) of their own, analogous to the cortex for descending coronal fibres; and these coronal fibres rising in the caudate body and (in the putamen of) the lenticular body find an intermediate station in the two interior stripes of the lenticular body." (l. c., p. 40).

The Striped Body is, as Wernicke shows, in no direct connection with the corona radiata. Yet the corona radiata is not the sole path of communication possible between the Striped Body and the cortex. There are other and more direct connections of a more

shield, as though it were an excrescence on the leaves of the plants upon which it sits. Its feet are degenerated. The proboscis of this creature is imbedded into the tissues of the leaf, the sap of which it sucks. The whole psychical activity of this parasite consists in the pleasure of sucking the sap and in coition with the males, who move about. The same is true of the grublike females of *Streptopoda*, who, without wings and feet, pass their parasitic lives immovably in the bodies of wasps." Translated from Haeckel, "Anthropogenie," p. 702.

* See Münsterberg, *Beiträge zur Experimentellen Psychologie*, Freiburg, Mohr.

† See Meynert's Diagram, 2. 2, page 235 of *The Open Court*.

intimate nature than can be afforded by a system of descending fibres. The Striped Body ontogenetically considered is continuous with the gray matter of the hemispheres and the connections established in this way are preserved also in the stages of a further differentiation.

A clear conception of the Striped Body and its relations to the corona radiata as well as the cortex, can be more easily obtained by a study of the adjoined diagrams:



SAGITTAL SECTION THROUGH THE BRAIN OF A PIG. (After Wernicke.)
(Natural Size.)

Showing the course of fibres in the internal capsule. The greatest mass is a continuation of the corona radiata, originating in the cortex. Part of these fibres enter the Thalamus, while the rest pass directly down into the pes cerebri (*p*). A great number of fibres are plainly seen to originate in the Striped Body.

nl. Nucleus lentiformis—Lenticular body.

II, III. Two stripes of lenticular body. The first stripe does not plainly appear.

p. Pes cerebri.

cr. Corona radiata.

cnc. Cauda nuclei caudati, tail of caudate body.

f. Forch.

th. Thalamus.

ga. Anterior of the four hills.

cgr. Corpus geniculatum, exterior external ganglion of optic nerve.



SAGITTAL SECTION THROUGH THE BRAIN OF A DOG. (After Wernicke.)

The corona radiata descending into the internal capsule (*ci*), sends no fibres into the third stripe. Some fibres appear to enter the third stripe; but they do not. Yet there are fibres that enter the first and especially the second stripe.

aR. Outer olfactory convolution.

f. Fornix, identical with Fimbria, to the edge of the hooked convolution.

nl. Lenticular body with three stripes. *I, II, III*.

nc. Caudate body.—*th*. Thalamus.—*ci*. Internal capsule.—*f*. Foot of the

corona radiata.—*p*. Pes cerebri.—*o*. Optic nerve.—*sn*. Substantia nigra.—

l-l. *gp*. Upper fillet connecting the thalamus with Posterior Four Hills.—*cgr*.

Corpus geniculatum, exterior external ganglion of the optic nerve.



FRONTAL SECTION OF THE BRAIN OF A MONKEY. (After Wernicke.)

Showing the connection between the nucleus caudatus and the second stripe of nucleus lentiformis.

i. Insula.

cl. Claustrum.

ce. External capsule.

t. Corpus callosum.

nc. Head of caudate body.

nl. Tail of caudate body, continuous with the temporal process of the lenticular body.

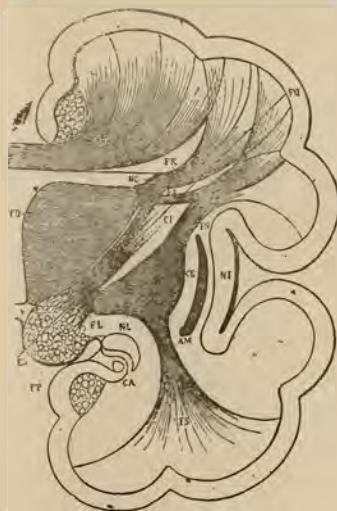
I, II, III. The three stripes of lenticular body.

o. Optic nerve.

ci. Internal capsule.

p. Pes cerebri.

sn. Substantia nigra.

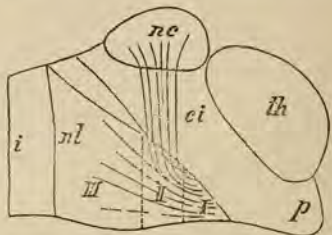
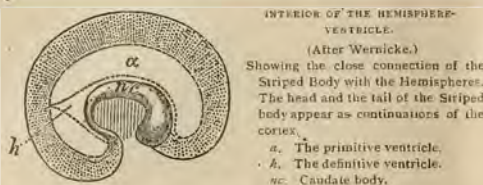


FS, FN. Connections with third stripe of lenticular body.

FK. Connection with caudate body.

The connections between the Striped Body (especially the third stripe) and Hemispheres seem to bear the character of commissural associations. It is not a connection through coronal fibres, which would denote that the

Striped Body is to be considered as a mere internodium, an intermediate station between the highest system of projection and lower stages. It is rather an independent mechanism attached to the field of cerebral activity. Not only the anatomical structure of certain parts of the Striped Body is similar to cortical regions, but also its connections bear the character of the connections between one cortical region and other cortical regions.



The Striped Body must be the organ of some brain activity that in its kind forms the highest terminus in a hierarchical system; judging from its size and structure the Striped Body must perform an important work of a very specialised kind.

The connections between the Striped Body and the Hemispheres, it seems, bear more the character of commissural associations, which interconnect the different provinces of the cortex. They are quite distinct from the coronal fibres. If the nature of these connections were similar to those established by the corona, it would indicate that the Striped Body had to be considered as a mere internodium or intermediate station. Wernicke's investigations indicate that its office must be higher; they must rather be of a co-operative than a subordinate nature.

Since certain tracts of voluntary motions originate in the Striped Body (see Meynert's Diagram, *The Open Court*, Vol. iv, p. 2381); while the memories of these motions must have their seats in the motor region round the fissure Rolandi, (see Ferrier's Diagram, *The Open Court*, Vol. iv, p. 2358,) we assume that the additional element which changes unconscious motions into voluntary acts of conscious motions, is a function taking place in the Striped Body.* P. C.

* This subject was treated of before, in No. 150 of *The Open Court*. It is discussed in this article with greater completeness.

CORRESPONDENCE.

GOD AND IMMORTALITY.

To the Editor of *The Open Court*.—

In Nos. 132 and 134 of *The Open Court* there is a paper by J. H. Brown, on the future of religion, remarkable, I think, for its clearness. Am I to understand that the views there expressed are yours? Certainly there is none of that sheer Agnosticism in it which deadens one's feelings. Then in such a book as Fiske's "Idea of God"; are not the views there identical with your own? He speaks of God as "The All Being," and that is not "the Unknowable." In fact, it seems to me, as Mr. Brown says, that Spencer is by no means a genuine Agnostic. He states positive truths; for example, in "Sociology" he describes God as the Power that produced mankind and all else. His God is indeed immanent in the world, and therefore known. Not less than personal, but more than personal, higher.

In *Ethics* I think we cannot agree with Spencer, for surely nature does teach us; the very environment and course of life tell us what is God's will. Just as the world is ordered and regular, so man sees in time what his life must be. Hence morality. So we cannot say that Ethics has nothing to do with religion. The better a man's life, and the nearer he is to God, the more does he know of God. Man's proper life, the will of God towards him, is just this, that he should live in harmony with the universe and his brother man. Still we must beware of talking about God as a "Moral Being" or "Moral Power," as Theologians did so abundantly in the past. Such language is dangerous; it destroys reverence and true emotion. God is far more than a power, as you say. Morality is all very well as applied to personality. Is not there danger in defining God as "the ethical life of nature"? Such a view seems to make nature itself wider and greater than God. Does not the defining God as the All Being go deeper? for existence and the forming and pervading power in the All is prior to any moral notion. Yet we are compelled to see the ethical tendency of this power. To put the matter in another way. The definition of God as the All Being is one that strikes deeper into the feelings, fills us more with reverence than to regard Him primarily as an ethical power. The word ethical connotes opposition and opposing powers. I am glad to see you do not swamp our notion of God as mere "nature," as you tell us we cannot worship matter, but we can and must have worshipful feelings towards that which moulds and sustains and pervades all things.

Then one subject more; with regard to that perennial subject Immortality—Individual Immortality. May I suggest some ideas: proofs I cannot call them, for I have never formulated or worked out the ideas. What of Wordsworth's thoughts in his poem—"not in utter nakedness but trailing clouds of glory do we come from God, who is our home," and "our sun hath had elsewhere its setting." (I quote off-hand.) A priori Wordsworth was the poet that was saturated with the idea of God as "immanent." He speaks for us of to-day. Then what of those mysterious musings that some of us have when mere children—yes, almost infants, of 6 or 7. I have met with several such questions like these: "Where have I come from into this world?" "What is beyond it all?" "Why have I life?" "What is the meaning of my being here?" "Where is the true beginning of all this?" "What will it all mean when cleared up?" In a word, the whole gist of thoughts like these, and I can speak from personal experience, is just this. This world, this individual life is not all. The secret is elsewhere. It seems to me this does point to some conscious existence of ours elsewhere, "somewhere surely afar in the vast sounding house of Being." The one thing most repugnant to us about death is the suppression of consciousness. Pain and want

and failure men can and do endure and risk; but to be obliterated, to cease to see and know and behold, is just what a sense of our own worth rebels against. Surely if the essence of humanity is the perception of the value and dignity of each individual, that individuality which has taken so many ages to produce is worth preserving. I do not picture my anthropomorphic heaven or spirit existence. Only why should not the individual memory or consciousness remain when absorbed in the soul of the universe? If the Eternal dwells in us now, all continuity with this present life will not be broken off.

It is a pleasure, amid this theological thaw, to find a paper like yours upholding, nay spreading abroad, sounder truths of religion. What a truth in those words of Edwin Arnold's in his "Death and Afterwards," p. 11. "Many are afraid to love, to rejoice, to labour, and to hope lest love should end in eternal parting, gladness in the cheerless dust, generous toil in the irony of results effaced, and hope itself in a vast and scornful denial." On this same subject, one cannot at all agree to those words in one of the articles in *The Open Court* on Immortality—No. 24, by Rudolph Weyler. He says, "I feel comfort in thinking that there is peace in store for me as an individuality when I shall lose all identity, and 'rest, sweet rest,' will finally be my portion, after all the toil and turmoil and pain and struggle in this life." I, like most others believe in Monism. The ethics of monism is surely stated to be meliorism. But what are these words? Pessimism, a mere longing for nothingness after all the strife and wretchedness of life. There is no sound belief in Meliorism, nay no sure Eutheism, no gladness in life in such wallings. And, indeed, to rejoice that "rest, sweet rest" is in store, and that peace is our lot, is just making a false use of words. Why not state frankly, he rejoices in annihilation as far as his individuality is concerned. Peace and rest, sweet rest, have nothing to do with that. They have not and do not want to have any relationship with death; they are not the true words to use in describing it. They denote consciousness and life, not nothingness. We do not say that rest, sweet rest, and peace is the state of a dead gnat when we see it. Let us beware of this abuse of language and fact.

WHITBY, ENGLAND.

W. INGHAM.

SIGNS OF SOCIAL REVOLUTION.

To the Editor of the Open Court:—

WRITING of the popular treatment of strikes, *The Dawn* says: "Miners in Hocking Valley strike, and a Father Huntington goes from New York City to give them cheer; a Henry D. Lloyd writes a book upon the subject and denounces the employers by name. No wonder that the disconcerted capitalists call this an attack upon them, 'without parallel in the industrial history of this country.' It is unparalleled, but it is only the beginning of the woes that, predicted in God's word, shall come upon the rich men of this land."

I write to give a further instance of the radical warfare that is being conducted against the reigning capitalists, and that is finding leaders in every town. In Ashabula, a place of about nine thousand inhabitants, the following subscription paper is being circulated.

"Believing that the day of oppression of the laboring man must be brought to an end, that the New York Central Railroad strikers are justly fighting to terminate this oppression, that their battle is the battle equally of all workmen and of all high-minded citizens, that it is therefore the duty of the general public to sustain them in their unequal struggle, and hoping that these interruptions of travel and traffic may lead to the early assumption and management of the railroads by the state, we subscribe in support of this strike."

The tendency of young men of intelligence to range them-

selves on the side of the workingman grows every day more noticeable. They feel that the capitalist is their natural enemy, making chances fewer and harder, not only for the great mass of manual toilers, but for them, unless they "stand in" with the rich and truckle to them and flatter them. It will not be very long before Mr. Wm. Clarke's saying in *The Christian Union*, about the brighter young men of England, will be true, likewise of Americans. "In a recent visit to Oxford, I did not find one able young man who was not committed to the new, economic ideas—the same ideas that are taking hold of the pick of the English working classes," he said.

MORRISON I. SWIFT.

BOOK REVIEWS.

LIVE QUESTIONS, INCLUDING OUR PENAL MACHINERY AND ITS VICTIMS. By John P. Altgeld. Chicago: Donohue & Henneberry. 1900. 320 pp.

The subjects treated of in this book are Arbitration of Strikes, Pensions, the Eight Hour Movement, Immigration, Protecting the Ballot Box, and some others. Many of the articles have already appeared in the magazines, and have received from the general press their share of criticism and review. We may admit the real and ability of the author, while differing with him in some of his conclusions, especially on the Pension and Immigration questions, but these differences fade away to nothing when we come to his exposure of "Our Penal Machinery" and "The Administration of Justice." Here there is no chance to differ with him on any material point, because the evidence by which he fortifies his argument is too strong to be resisted. Besides, he speaks as one having authority, a judge, experimentally familiar with all the springs, cogs, pulleys, wheels, concentrics, and eccentricities of "Our Penal Machinery." There is not much declamation in the book, and very little ornamental rhetoric, but this revelation of wrongs done to the poor, by men clothed with a little brief authority, stirs the pulses with a fiercer anger than did Burke's rhetorical impeachment of Warren Hastings, for like magisterial cruelties. Here, from the bench itself, comes a cry that in the days of our fathers would have moved the very stones "to rise and mutiny."

That cry has been heard before, but it rose to the sky unheeded, because it came from the balls of unrest, where labor pleads its cause. It came from the platform of discontent, where passionate invective shakes our social system like a storm. This appeal for justice was unheeded when it came from the "lower classes," and the men who made it were outlawed by "society" as the enemies of social order; but a warning from the court-house, a charge from a judge on the bench, will be heard above the jingle of coin in the bank, or the clamor of trade.

There is comic irony in the title of the Fourth Chapter, "The Administration of Justice in Chicago." The whole chapter is a demonstration that our judicial system is a perverse contrivance for the administration of injustice, and the oppression of the innocent. According to Judge Altgeld, the civil courts of Chicago are closed against the poor asking for protection, while the criminal courts are always open for their punishment. The Judge says: "At present, when a man begins a suit he generally has to wait nearly two years before it comes up; in the meantime, the situation of the parties may have changed, or the subject matter of the suit become worthless."

The above accusation is only one count in the indictment which Judge Altgeld has drawn up against the civil courts of Chicago; a few others may be noticed here. It does not follow that because the case "comes up" it will be tried. In fact, the coming up of it is only the starting point of the suitor's torment. "This is the time," when, in the language of Judge Altgeld, "he begins to neglect his business and look around for his witnesses." In the course of a few days—or a few weeks—the case is placed "on the call" for the following day, but the suitor finds that he must hang

around the court with his witnesses for several days before the case is called "in its order." When all the resources of "how not to do it" are exhausted, and the case actually does come to trial, the suitor, says Judge Altgeld, "is astonished to find that it is not the justice of his cause which is the main subject of inquiry, but that, instead, it is the rules of procedure about which great solicitude is shown." This is not burlesque, like Mikado, with its Lord High Executioner; it is the very language of the judge. The testimony being all in, the jury is then duly muddled by the "instructions" of the court, or in the milder language of Judge Altgeld, "left with very confused notions of what the issues of fact are." Lost in the cobwebs woven around the issues by a judge, perhaps innocent of law, and knowing nothing of it but its forms, "the jury is liable to bring in a verdict which is entirely wrong, and must be set aside, or else to disagree." Is it any wonder that a jury, left by the court "with confused notions of what the issues of fact are," should toss up a copper for the verdict? And would it not be better to do that at the beginning instead of the end of the play? Thus, by the very laws of chance, provided the judge were not allowed to tamper with the coin, the right man would get the verdict half the time, which is better than he can do under the present system; and even should he lose the toss, he would be spared those tedious months and years of worry and expense. Better to lose a suit at the beginning by casting lots, than to win it at the end of tribulation.

Supposing the suitor to have had more than average good luck, and to have obtained a verdict, he is just in the middle of his agony. Then comes the motion for a new trial, and the appeal to the higher court, which tribunal, says Judge Altgeld, "reverses about forty per cent. of all cases brought to it; not on the merits, but because of some 'frivolous error' in the procedure." Should the judgment be affirmed in the higher court, the case is appealed to the highest court, which "involves another delay of about a year, and the payment of lawyers' fees, printers' fees, etc." Should the case be reversed there, the baffled plaintiff looks up his witnesses once more, and again begins to chase his right around the disappointing cycle of a lawsuit. It is evident from all this, that the money cost of justice leaves the poor man without standing-room in any of our courts of law.

The expense to the public of the civil courts is an unjust burden on the people who do not go to law. Judge Altgeld shows that the net cost of these courts during the year of 1888 was \$237,737. This is a very large sum for a judicial machine run by sixteen judges, whose mission it is to see that the very wrong, and not the very right of it shall prevail, and that injustice be effectually done. It is only fair to say that Judge Altgeld lays the blame for much of this injustice on "unwise legislation," by which the machinery of the law has been compelled to work in the reverse way. This may be true, but there is a justified opinion abroad that the judges might adjust the lever so as to compel the machine to produce less evil, and more good. It is rather discouraging to hear Judge Altgeld say, and prove it, that in every other field of knowledge there has been a steady advance in the line of common sense, "while in our methods of administering justice we seem rather to have retrograded."

Judge Altgeld exposes the various parts of "Our Penal Machinery" with much dramatic power; and there is eloquent pathos in many of his descriptions. It is perfectly safe to say, that a similar exposure of like instrumentalities in England, would change the government and overturn the ministry; not by violence, but by a sentence of the House of Commons. Judge Altgeld's book shows the reaction which our pig and pig-iron civilization is making towards the penal methods which prevailed in England under the sanguinary criminal code of centuries ago; a reaction against the Bill of Rights, the Habeas Corpus law, and the other provisions by which the American Constitution tries to protect the life,

liberty, person, and property of the citizen. We see in vigorous activity among us the system practiced by Jonathan Wild, when he was chief of the London detectives, with this difference, that whereas Jonathan Wild was hanged for the way in which he administered his office; our detectives, who imitate his methods, walk about with the stars of authority upon their coats, and the weapons of government in their hands. This, and not the opposition to it, is revolution.

Judge Altgeld presents an appalling record of crimes committed by Our Penal Machinery. No just and humane man can read it without a sinking at the heart, and a feeling of self-reproach. The expense of the machinery is a frightful tax, literally wasted by the failure of its purpose. In the words of Judge Altgeld, it "is immense, it is costly, and its victims are counted by millions." Further on he says that "it does not deter the young offender, and it seems not to reform nor to restrain the old offender." Worse than that, "it makes criminals out of many who are not naturally so." This is a terrible indictment, and Judge Altgeld sustains it with abundant evidence. We scourge misfortune while pretending to punish crime. "In short," says the judge, "our penal machinery seems to recruit its victims from among those that are fighting an unequal fight in the struggle for existence." Listen to some of the testimony.

Judge Altgeld finds that out of 32,000 persons arrested in one year in Chicago, 10,743 were discharged by the police magistrates because there was nothing proved against them, in other words, because they were innocent; yet every one of them had been treated as a convicted felon. "So that," says Judge Altgeld, with creditable indignation, "during the one year there were in that one city 10,000 young persons, who, without having committed any crime, were yet condemned to undergo a criminal experience." And then, in order to fix public attention on the crimes of our penal machinery, Judge Altgeld says: "Think of this a moment! Mind, these were not even offenders. But what was the treatment which they received? Why, precisely the same as if they had been criminals. They were arrested, some of them clubbed, some of them handcuffed, marched through the streets in charge of officers, treated gruffly, jostled around. Now, what effect will this treatment have on them? Will not every one of them feel the indignity to which he or she was subjected while life lasts?" Yes, Judge, though the handcuff marks disappear from the body, the scar on the soul remains forever. In most cases this handcuffing barbarity is practiced not to secure the prisoner, but to brand into his memory a lifelong mark of degradation. Handcuffing a prisoner without imperative necessity is aggravated assault and battery. It will be declared so some day by the courts; and on the trial of some policeman for this offense, it will be held that the burden of proof is on him to show, not only that the crime charged against the prisoner justified the handcuffing, but also that such treatment was absolutely necessary to secure him in custody.

Judge Altgeld's book is not quite large enough to hold a catalogue of all the iniquities done in Chicago by "Our Penal Machinery," and for that reason many of them escape his indignation and scorn; but there is not a true man in the city whose face will not burn with shame when he reads about the cruelties inflicted upon unfortunate women, often for no higher purpose than to convert the wages of their sin into fees for officers. In publishing this book, Judge Altgeld has done a great service to humanity.

M. M. T.

BOOK NOTICES.

Professor George T. Ladd, of Yale University, has just completed a work entitled "Introduction to Philosophy," a broad and comprehensive view of the whole field of Philosophy. (Scribner's.)

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CARDINAL NEWMAN.

BY MONCURE D. CONWAY.

I.

MANY years ago, while visiting friends at Birmingham, my wife and I went to early mass at the Oratory, wishing to see "Father Newman." We were accompanied by an authoress—a devout member of the Church of England. It was about daybreak, but no day broke: it was so rainy, foggy, sleety, cold, dark, that—the Oratory being nearly a mile distant—we once or twice paused, hesitating to go on. Surely the aged and feeble father would never rise from his bed on such a morning, and we should only see one of his subordinates. We determined, however, to proceed, and at length groped our way into the Gothic building, which was totally unlighted. For a time we were the sole occupants. After a little while some Irish servant women came in at intervals, perhaps half a dozen. These, with ourselves, made the entire congregation on that dismal morning. Presently a young priest appeared through a small door in a corner of a chapel, bearing one tallow candle which he set on a desk, where it faintly revealed a small altar and a crucifix. The fog was in the room, in one-half of which the candle's beam only made darkness visible; but it shone on one picture, which I particularly remember. It was an old picture of St. Francis in ecstasy. The saint seemed to be in some cavern; all was hard, cold, desolate, around him; but there was a glory around his head and a rapture on his face.

While I was gazing on the picture, slow, irregular steps were heard descending a stairway; the little door of the alcove in the corner opened once more, and Father Newman appeared. He knelt in such a way that the candle was just behind his head, and the fog turned into a halo around it. When, presently his bent face was raised upward there was such radiance on it, that the neighboring picture of St. Francis became real. The dim corner of the chapel seemed a cavern, and the youthful face of the neophyte attending him was as that of a sustaining angel. During the celebration of the mass, the Father's face passed through several phases. At one moment he bore a curious resemblance to an aged woman; at another he was the very image of Emerson—a resemblance often remarked; but in all he was as striking a figure

as my eyes ever beheld. On him was the stamp of mental power, of sincerity, of simplicity; but above all was that expression of St. Francis in his ecstasy—the look of one so far away from the world that he could not even be conscious of its sleet and fog, of its darkness at daybreak, or of souls groping through the miseries of earth, for whom his tallow candle and crucifix brought no sufficient guidance.

No doubt the picturesqueness of Father Newman, on this occasion, was partly due to the historic perspective through which I beheld him. To this son of a banker, born beside the Bank of England, the wealth and the progress of the world's commercial metropolis had become as so much dross. Born in the first year of our century, he had grown up under all the sunshine of its prosperity, and on him was lavished all the light of its culture. By his side modern science had published its marvellous revelations; Darwin, Lyell, Huxley, Tyndall and others had revolutionised man's conceptions of nature; under the researches of Max Müller, Strauss, Renan, Haug, biblical legends had taken their place with those of Brahmanism, Buddhism, Parseeism, in universal mythology. The political fashion of this world had passed away under his eyes. England had become a "crowned republic"; France had become a republic; Germany had been consolidated into a vast democratic empire; the Papacy had been reduced to a temporal power confined to the Vatican walls; Rome had become the capital of a secular government. What were all these to the man there in his dim corner of the world, with his upturned face? They were all but as the dust floating in the beams of his tallow candle. He rose to the head of his school at Ealing, he absorbed the learning of Oxford, he became the great preacher on whose words the youth of Oxford hung, breathless. There was no prize that England was not eager to bestow upon him. His path was clear to the archiepiscopal throne of Canterbury. In middle life, in the zenith of his career, he turned his back on all these things, left the proudest position gained by any religious leader in his century, and knocked at the door of a small Catholic church near Oxford, asking for admission as an humble member. There was no more prospect of any grand career for him in England. He sat there at Littlemore, along with Irish servant girls; and here,

after the lapse of more than a generation, I saw the aged man celebrating mass, on a bitter morning when every Protestant priest was snug in bed, for half a dozen domestics and three critical heretics.

As we were returning from the Oratory, impressed to silence by what we had witnessed, I felt that it was a phenomenon to be studied. I presently said to the devout lady with us, "How do you explain Father Newman? What can have caused a great scholar, orator, genius, to abandon the prospect of a splendid career in your church, and now, at over three-score and ten, to scorn the elements that he may say mass for a few Irish domestics."

"There is," she answered, "for me but one explanation: a glimpse of the supernatural world. Under that vision this world and its glories shrivel up."

The vivid recollections of that morning at the Birmingham Oratory returned on me to-day as I waited in the Brompton Oratory, London, (founded by Newman in 1850), to hear the requiem of the dead Cardinal, and the funeral discourse by the surviving Cardinal. Though I arrived an hour before the appointed time the church was nearly filled, and soon even the standing-room was occupied. My seat happened to be near the shrine of St. Mary Magdalene. There are three interesting pictures in it. One represents her bathing the feet of Jesus with her tears, the long golden hair falling on them. Another shows her kneeling before Jesus near the tomb, when with glad surprise she says, *Rabboni*, "*My Master!*" In the centre, over the altar, she is seen kneeling before the cross, in her grotto; she is pretty, but without any of the mingled voluptuousness and penitence which turned the word "Magdalene" into "Maudlin." Somehow, as I looked on the Magdalene kneeling before the man she mistook for the gardener, but afterwards declared to be the risen Jesus, I felt that she was the spiritual Mother of the dead Cardinal. "When Jesus was risen he appeared first to Mary-Magdalene." The subsequent appearances are vague and doubtful. Some couldn't recognize him, others thought they had seen a spirit. On the word of Mary Magdalene mainly rests faith in the resurrection. Through her comes that glimpse of the supernatural world under which, for a man like Newman, this world shrivels, and its interests become trivial. Once suppose Mary to have been hysterical, or her vision an illusion of her heart, or her story an affectionate invention to soothe the mother's anguish, and the foundation of Christendom is shaken. Believe her story, and the career of John Henry Newman ceases to be mysterious. What can be more natural than that a man should lose interest in an evanescent and chaotic world when he is assured of presently ascending to one of unfading perfections?

And much more if he is sure assured that a trip

amid the world's affairs—the "Prince of this world" being God's Adversary—entanglement in any earthly interest, may result in everlasting damnation. This last reflection comes to me with the first strain of the funeral hymn—*Dies ira*. A cold horror came on me as I listened to the choir singing those terrors of the dark ages at the funeral of an English scholar. The last time I heard any part of it was in the opera of "Faust," when the devil appropriately utilizes the hymn to terrify poor Margaret in the church. It was to-day sung in Latin, however, and even those who had the prayer-book translation (in which the original is toned down), paid more attention to the singers than to the words. But the barbarism of the hymn was to me almost scandalous, on such an occasion, and I was glad when it was over, and the venerable Cardinal mounted in his pulpit.

I have much respect for Cardinal Manning, on account of his devotion to the welfare of the poor, and his endeavors to reform the drunkards of London. He has not the intellect of Newman, but more humanity. Newman would have no dealings with his heretical brother Francis, giving as his reason, "St. Paul bids us avoid those who cause divisions; you cause divisions; therefore I must avoid you." But Cardinal Manning once invited the writer hereof to his palace, as a London minister to consult about securing purer water for the poor of the city, his interest in humanity overcoming other considerations. To-day it was most impressive to see and hear this aged man (he is over 80) on so solemn and historic an occasion. There was too much in his look and voice to suggest that it might be his last appearance on any occasion of public importance; he held his manuscript near his eyes with both hands, spoke with intervals, and was heard but by few. But there was no sign of decline in what he had said. He spoke with emotion of his sixty years friendship with Newman, but his voice had the old ring of the propagandist when he alluded to the late Cardinal as having ended the "superstition of pride" which once declared "the Catholic religion fit only for weak intellects and unmanly brains." And the aged Cardinal was almost eloquent when he claimed that the universal love and veneration manifested towards Cardinal Newman since his death—a sort of "canonization"—proved the extent to which he had changed the religious thought of England. "An old malevolence has passed into good will."

Cardinal Manning was careful to add, "I will not therefore say that the mind of England has changed." My own conviction is that the mind of England has, indeed, changed, but in a direction the reverse of that in which the Cardinals sought to lead it. The severity towards Dr. Newman forty-five years ago, which the Cardinal calls "malevolence," was due to a public

interest in dogma which is felt no more. Darwinism has had its advent since then. The Englishman of to-day smiles at the Tractarian excitement as a tea-pot tempest. He can now explain Newman, Pusey, and the rest, on principles of "evolution." Men and movements cease to be irritating when they need no more be answered because they are explained. The first heat of the Anglicans against the "perverts" now sounds like the old grammarian's curse—"May God confound thee for thy theory of irregular verbs." Toleration is a symptom of the decline of faith. It is indifference. And the late Cardinal, and his fellow-seceders into Catholicism, did much to promote this decline. Prof. Huxley once made the pregnant remark that "the next best thing to being right is to be clearly and definitely wrong." When Newman, Wiseman, Manning, and others, pressed their dogmatic principles to logical conclusions, the veil of the English temple was rent. Superstition could no more work behind any veil of obscurantism. The church was distinctly divided into "evangelical" and "broad" parties, as to dogma, while ritualism was revived for those who cared more for symbol and sentiment than for theology. The secession ended.

POSITIVE IDEALISM.

BY G. N. M'CRIE.

"I sent my soul throughout infinity,
Some letter of the after-life to spell;
And by and by my soul [self] returned to me
And answered *I myself am Heaven and Hell.*"—OMAR KHAYYAM.

THE tides of philosophic thought are setting towards unity. This tendency, however, though manifesting a unity of aim, does not of itself imply a necessary unity of conclusions. Modern Thought may have Monism in view—almost within sight, but this prospective Monism—the all inclusive generalization which is to blend God, Man, and Nature in one—leans, in the matter of conclusion, to one or more of these three aspects. Hence the so-called Cosmical synthesis is generally either Pantheistic, Idealistic, or Materialistic by preference, being usually a pet concept elevated so as to include less favored ones. But, to borrow an analogy from Physical Science, does it not seem as if the colored, and as it were prejudiced, conception must make way, upon the face of it, for the achromatic and colorless, as the rays of the spectrum blend in the pure white light which is the synthesis of them all?

The various paths by which Monism has been attempted are not without their common difficulties. Appearances, common-sense appearances, do not, at first sight, favor any such formula. Dualism seems so plainly manifest. Long before the date of Reid's dictum "I perceive the external object, and I perceive it to exist," the plainly obvious standpoint had

been assumed—the simplest, yet most erroneous of all—that the so-called 'external,' objective, world of nature actually existed 'over against' the subjective spectator, and, this being taken for granted, Man and Nature being, as it were, together in the field, it was easy to cross to the question of origin upon the wing of inference, and to imagine a creative and sustaining Power in whom both alike lived, and moved, and had their being. Yet, though Man and Nature might, in a sense, be classed together as created, there always lay, between the Creator and the created work, the chasm which parts, or seems to part, Infinitude from finitude. The partition between subject and object divided Man from Nature; the void between the finite and the infinite distinguished God from both.

The most notable modern attempt at philosophic unity attacks the first, or subject-object, problem, and, in so doing, indirectly professes to solve the other as well. It is that of the so-called "Neo-Kantian" school of thought, including the late Professor T. H. Green, of Oxford, and M. M. Renouvier and Pilon, among its most prominent representatives.* The leaders of this school are not altogether unanimous in their conclusions. But they agree in this, that, after reconciling the objective world with the subjective spectator, this individual subjective is practically effaced, in favor, with Prof. Green, of an Infinite Consciousness, and, with M. Renouvier and his followers, of "foreign centres of impressions"—other Egos to wit. The point principally noticeable here is, however, their attempted identification of the objective with the subjective. The process is briefly this—borrowing the 'Impressionalism' of David Hume, it is sought, with the aid of the Kantian Category of Relation, to 'constitute' nature by means of something variously entitled "consciousness" or "thought." Matter, perceived or known, consists in "relations between facts in the way of feeling." Nature being thus constituted as a system of relations, and there being nothing outside of consciousness, nothing being ever really present to the mind but its own related impressions, the objective falls into the subjective.

Now, all this has been questioned. It has been demurred to by the Realist, who objects to the disappearance of Nature in the Understanding, and the whole process has been not unjustly described as an argument illegitimately based upon abstractions. It has been urged that the spheres of Knowing and Being have been unwarrantably assumed as coterminous, that the sum of the known has been assigned equal to the sum of the actually existing. By a process of piling up 'feelings,' held together and synthesized by the category of Relation, a Cosmos has, indeed, been con-

* Cf. Green: *Introduction to Prolegomena to Ethics*, Renouvier, *Essai de Critique générale*; Pilon, *Psychologie de l'Homme*.

structed, but it is one which bears no provable relation to the universe of existing reality. Consciousness, Thought, Relation, it is said, have been lifted out of their true position which is wholly an abstract one, and have properties assigned to them which really belong only to a conscious *subject*, to a *thinker*, and to a *Relator*. It were easy to rise, as does Prof. Green, from an abstract Thought or Consciousness, 'constituting' Nature, to an Infinite Consciousness in which all finite consciousness is contained, and thus, by slurring over the individual, the personal, subject, in the interests of an Infinite subject-object, to lessen the difficulties of Monistic theorising, but the question arises—is such a solution one which takes into account the elementary realities of Knowledge and Being? And this criticism, so far, is a just one. It would be wholly conclusive on the part of the Realist as against Neo-Kantianism, did not the critic himself fall into something of the same snare. That this is the case may not appear on the surface, but once explained it is just another example of the truth that extremes meet. I perceive and thereby constitute (for my own personal knowledge at least) under the guidance of the category, an object, say a line. This object is, however, in reality, a synthesis of points, points undistinguishable, as such, except in the combination-line. The line is that which I perceive. Thus far both schools of thought agree. But the Realist opposes to this personal constitution of the object—which, with Professor Green and his followers, is its *sole being**—something else, really an abstraction, which he, (the Realist) calls the actual being of the object as distinguished from its *known* being. This distinction he justifies by the assumption that the work of the mind is "arbitrary and irregularly changeable," not reliable in fact, even as a mirror for the reflection of existing appearances, and he seeks to verify the known result by reference to what he supposes to be actually existing and independent fact, but which is really something wholly in the air. For we must remember that Reality is no independent 'outside' thing, by reference to which, as a standard, the objects constituted by the understanding may be, as it were, checked. The objects thus constituted (not only so far as thought or consciousness is concerned, but in every possible sense, that of origin and persistence included) are *real* and the *only* reality. It is all a question of Cognition and Recognition.† The same thing is (with a modification which we note later on) the "thing" in the same relations. Erroneous judgment as to matter of fact is no unreality. It is equally existent with the truth.

* Cf. Professor Veitch, *Knowing and Being*.

† For a very able statement of this position, on the lines of Positive or Hylo-Idealism, as exegatized by Dr. Robert Lewies, see "Induction and Deduction and other Essays," by the late Miss Constance Nadlen. (London: Bickers, 1900.)

Only, in erroneous judgments, the conditioning relations which go to form the judgment aimed at, or the true judgment, are either wholly different, when the thing is entirely different or another thing, or they are not present in totality. But the conditioning relations are none the less real; as we shall find later on, the relations themselves are the sole reality. The field being wholly occupied by the real there is no room for the intrusion of any 'outside' standard of comparison. The real is everything, and, as a concept cannot transcend a percept in the sense of verifying it, any abstraction in the way of an 'outside' and persisting reality can only correspond with what arises within consciousness. There is nothing else from which it can possibly arise.

The common error of these two thought-systems is thus their tendency to abstraction. Prof. Green and his followers lean too exclusively to the abstract view on the *subjective* side, suppressing the individual, personal subject in favor of an abstract "Thought" or "Consciousness," which again resolves into an Infinite Consciousness, not a personal consciousness at all. The other side, ably represented by Professor Veitch of Glasgow University, also follow the abstract path, but mainly on the *objective* side, eschewing as they do the personally-constituted world of nature, and that which constitutes it, to wit the personal relator, in favor of an altogether external conception of that which *is*, called Being—this Being not necessarily corresponding with the known, but transcending it, and superior to it in the sense of being stable and persistent. To the philosophic student the net results of these two speculative systems are reminiscent of the results of Hume's philosophy on the one side, and that of Berkeley on the other. The former eliminated the subjective consciousness, the latter the objective world.

Modern Philosophy, in point of fact, takes refuge in abstractions. The truly concrete is lamely resigned to the modern *savant* whose methods are objective and crudely empirical. A wholly veracious 'outside' world is taken for granted, nothing in the way of philosophic synthesis is attempted, and the resulting conclusions are but those of the specialist. What authority exists for this unnatural divorce of the empirical from the metempirical? Can that which is true in Science be false in Philosophy, or *vice versa*? The world of Nature, constituted by the understanding, is surely not another sphere from the material world built up of atom and molecule, that the one aspect should be the property of a philosophic caste, the other relegated to a scientific clique. The need of the age is an analysis more profound than any specialist one, and higher than any metaphysical abstraction, and therefore a synthesis more inclusive because univer-

sal. For the category of relation binds the groupings of carbon compounds no less than the complex web of syllogistic reasoning.

The subject-object puzzle is at the root of this mental-material difficulty. Mental process and its physical concomitant, molecular brain agitation, are popularly voted parallel lines never to meet. True, we are told that "mental and material states may be unified in the individual,"* and the statement is philosophically and scientifically accurate, but how far does this conclusion carry us if the "individual" in question is but the individual of the bodily organism? Only a little way. And then we land in the difficulty of having made understanding issue out of nature, while nature, at the same time, is admittedly forged in the "workshop of imagination." A limited ego, whether it be a mental abstraction or a physical organism, will not serve. Matter constituted by mind, and mind arising as a function of material brain,—these two reciprocally interchangeable will never bring us to unity. Physically, the bodily organism is constantly exchanging particles with its material environment; philosophically, that which is an integral portion of a series cannot synthesize the series which includes itself. Is Dualism then the only conclusion? Not so. Understanding is not swallowed up in nature, nor does nature disappear in understanding. The ego is not the bodily organism alone—a stray momentary grouping of atoms swiftly passing over into its opposite. For this reason that there is *no opposite*. That is the verity of verities, and key to the whole enigma. The true, the only ego, is not the limited self of the bodily organism, but the subject self projected so as to include the objective. It has been the characteristic tendency of certain so-called absolute systems to minimise, if not wholly to discount, the individual subject, to treat the assurance of its self-existence as itself an illusion. In common with many overdrawn speculations, this one has its vestige of truth. The limitary, individual self cannot be found. Never continuing in one stay, neither the philosophic ego, immersed in its own relatively constituted nature, nor the bodily self, whelmed in material flux, can for an instant be isolated or defined. The true ego is not limited but cosmical. We lose the lesser, but to find the greater self—in everything. The thinking subject does not merely codify the manifold into unity; it is the Unity of the Manifold itself.†

It will be evident to the reader that there is, thus, no *septum* between the "thing thought" and the "thing itself," or, as it is more briefly put, in the

language of Hylo-Idealism, between "think" and "thing." My conception of the universe, as a system of relations, lies on the same plane as my perception of it as a concourse of atoms. Nay, the conception and the perception are *identical*. A brief examination will make this clear. That a system of relations can form the warp and woof of Being *without* addition of so-called material substance* to form terms for the relation may seem a hard saying. Relations between "viewed objects" are familiar enough. These objects are looked upon as the 'terms' of the relation. A mental bridge of relation popularly spans the gulf between material things. These material things are supposed to have 'body' or 'content'—the mental to have none. Hence, on the physical plane, it is urged that the theoretically indivisible atom must have content (which is contradictory as it would then have at least top and bottom, hence divisible) and cannot possibly be a mere mathematical point, "having position but not magnitude," on the ground that out of nothing nothing comes, and that multiplication of *a* by any number produces only *a* as result. Similarly it is contended, on the mental plane, that no conceivable number of "empty" relations—that is relations without content or terms—can ever evolve related things. But there is really no more ground for positing 'things' as *termini* for relations than there is for ascribing 'content' to ultimate atoms.

The word "relation" in its every day, secondary, sense applies, indeed, to a connection, analogical or otherwise, between terms, but these 'terms' are only unanalysed relations in turn, and the content apparent in them is only that of regress of relations. The link is everything, the term nothing. Relation is thus no abstraction of the sequence, or coexistence of concrete things, it is the very thing itself, to add to which a wholly unnecessary and contradictory 'content' is to multiply first principles without necessity, and to perpetrate a fallacy akin to that of Animism, introducing an element unwarranted by the conditions of the problem. The one indispensable element of relation is not content, but a *relator* in the relation. Without a relator the whole edifice of relation falls instantly. This relator is "for" the related, and *vice versa*; there is no partition, or otherwise than a relational distinction between them. Relation, which is all and everything, includes relator and related.

True Idealism is therefore *positive*. The stable and certain ground which bears our individual weight and constitutes the individual self, is a system of relations. From this point of view, the purely empirical method on the one hand, and the purely abstract on the other, are seen to be not merely half-truths, but essentially misleading in character as introducing a vi-

* W. B. McTaggart—"Absolute Relativism."

† "As the world is to each man as it affects him; to each a different world" (G. H. Lewes), so every one constitutes his own system of relations, to each a different system, to be construed rightly or wrongly, perfectly or imperfectly, (but always really and truly) as the case may be.

* "Substance" in common language, but more properly "body."

cious issue. Empiricism illegitimately contributes material content, or terms having content, to simple relation.* Abstractionism adds an unnecessary principle in the way of A-gnosis, an unknowable, absolute, or unrelated something to that which needs no such supplement, indeed negatives it. Hence the conclusion is an egoistic relator, part and parcel of the relational Cosmos egoistically constituted. Microcosm and Macrocosm are but Auto-cosm. All else is Dualism. This is Monism.

THE ORIGIN OF REASON.

THE ASSUMPTIONS INVOLVED IN NOIRÉ'S THEORY.

BY T. BAILEY SAUNDERS, M. A. (OXON.)
(CONCLUDED.)

Noiré's theory consists in recognizing and applying to the question of the genesis of distinctively human faculties, the broad result of philological analysis, namely, that the simplest elements of language are conceptual signs. Now, these conceptual signs cannot have come into existence at all except in direct connection with some particular acts or objects, for the simple reason that all our knowledge, though not entirely derivable from sensuous experience, is ultimately concerned with it. What particular acts or objects, then, would be most likely, by their very nature, to supply the conditions for the rise of concepts, and at one and the same time to call forth the sign which is not only their manifestation but their very essence? Those, said Noiré, which involve common creative labor, acts in which several would join at once for the purpose of doing something together, acts such as digging, striking, weaving, in which the product of common labor would be seen growing under the very labor itself, and would be intuitively recognized as the result of common action. No acts would be so likely as these, concluded Noiré, to render inevitable what is the essence of conceptual thought, a consciousness of the manifold as one; and since it is characteristic of men engaged in a common work to relieve their feelings and stimulate their efforts by the utterance of cries, these cries would tend to become associated with the labor and with the product of it. Cries like these would have a predicative meaning, that is to say, they would bind together the activity itself and the result of the activity; and as at the beginning no distinction would have been made between the subject and the object of the work, the cry would be the simplest element of thought, a sentence-word, a conceptual sign.

* Relation, *par et simple*, being instinct throughout, really corresponds most closely with the purely scientific modern definition of matter, not as organic and inorganic, but as Büchner puts it, "instinct throughout with the most shining life." An atomic cosmos cannot be thus alive—its atoms cannot be activity themselves, but only *centres* of activity. Mutually attractive atoms are inconceivable as implying a thing acting where it is not.

And Noiré went further asserting that a sentence-word thus formed would arise under ideal and universal conditions. By this he meant that the whole process and every part of it would be an act of *will*, issuing in particular sensuous experiences, some temporal, some spacial, some causal. The cry, for instance, is a particular sensuous experience, audible and temporal in its nature; the object produced is another particular sensuous experience, existing in space and visible; the activity is intuitively recognized as something causal; and all three are acts of will, and acts of will undertaken in common with others and followed by a common result. The manifold of all these sensuous experiences or presentations is brought together, by an ideal intuition, under one unifying sign, the cry which accompanies the work; a cry uttered by all, understood by all, the repetition of which would mean that the whole process is reproducible at will. Here then, said Noiré, is the origin of a true linguistic sign, a manifestation of the logos.

Now there are, unfortunately for the validity of the theory, two assumptions on which it rests, one of which certainly destroys it as a possible explanation of the *origin* of mind. It is quite true that no theory can afford to dispense with assumptions; but it is also true that no theory is worth anything which presupposes the existence of that of which it seeks to show the origin. Noiré's two assumptions are these: the existence of the social instinct, and the presence of what he calls 'ideal intuition'.

The *social instinct*, by which is here meant the tendency of primitive men to work together towards a common end, is not the exclusive characteristic of the *genus homo*; as has been previously remarked, it is an ordinary feature in the life of many of the lower animals. The social instinct cannot operate either amongst the lower animals or in man, without the existence of some sort of intelligible signs, not necessarily linguistic or audible. If the existence of the social instinct were the only assumption on which Noiré's whole theory were based, there would be no ground for restricting the first appearance of *reason* to the *genus homo*. Noiré is forced to do so, in spite of the character of this assumption, because he further assumes that reason is impossible without speech—an hypothesis which may be true, though at present it is safe to say that opinions are not entirely in favor of its validity.

However difficult it may be to pronounce upon the exact part which, in Noiré's theory, is to be assigned to the social instinct, there can be little doubt that the second assumption is quite destructive of the value of the theory as an account by the *origin of reason*. It must be obvious at once that an *ideal intuition* is the very process which has to be explained, and that to

assume it as part of the agency which gives rise to concepts is to argue in a circle. What is an ideal intuition, coming into play in the origin of concepts, if it is not that binding and separating force of the mind which penetrates through sensuous experience to underlying unity? This binding and separating force is a mental process, let us admit, which only manifests itself in the concept, and then only in and through a sign; but it is logically prior to the concept. In Noire's explanation its existence is confessedly assumed; and so we are forced to the conclusion that the theory offers no real explanation of the rise of conceptual thought.

Now Professor Max Müller, the advocate of this theory, is very frank in his avowal of sympathy with the historical as opposed to the theoretical treatment of these questions,* and consequently when he applies the Historical Method to an inquiry into the origin of concepts, he is evidently justified in asserting that in such and such conditions may probably be found their origin. By 'origin,' however, he must here mean 'first manifestation,' origin in the historical sense; he cannot mean origin in the theoretical sense, that which was not a concept, but out of which concepts developed. We may, it is true, speak of a spring as the *fons et origo* of a river; but we must go behind the spring to find out the real source from which the river flows.

To conclude, it is doubtful whether any real explanation of conceptual thought, any explanation, that is, which does not involve an argument in a circle, can ever be possible; and of this doubt Noire's attempt is a striking confirmation. Into any theoretical definition some such term as *intuition* is sure to be introduced; or, in other words, an explanation of the processes of the mind ultimately made to rest on something without which thought is impossible, some condition precedent to all experience. This is just the very characteristic of the mind which is all-important, and which cannot be explained.

The first dawn of conceptual thought, the first germ of the logos, these and similar expressions can be taken, as far as Noire's theory is concerned, only in the sense that this is the furthest we can get back in the inquiry. What has to be explained, what Mr. Romanes and others maintain that they do explain, is not so much the dawn of conceptual thought, as the light which makes the dawn, conceptual thought, the act of ideal intuition, itself; how this could have been developed, and was developed out, of something below it in the hierarchy of psychical phenomena. If Noire's theory is put forward as a solution of that problem, as an explanation of that difficulty, it is a solution which itself requires to be solved. Perhaps

we shall never arrive at a satisfactory solution. But in acknowledging that the difficulty still remains, in spite of all that has been written on the matter, it would be untrue to go further and maintain that nothing has been done towards removing it; for even a clear statement of the difficulty is a step in advance. So much, at any rate, has been already achieved. Zoology has taught us how small is the structural difference between man and his alleged simian ancestors, and psychologists have made clear in what his mental superiority consists. We know where we are, and what it is exactly which has not yet been explained.

THE AFRO-AMERICAN AS HE IS.

BY T. THOMAS FORTUNE.*

It is unfortunate for any country to have a race question. It is doubly unfortunate for the race which is the bone of contention. And, yet, it is a fact that few countries, ancient or modern, have been without such a question at some stage of their history. The Jewish question in Germany, the Irish question in Great Britain, and the African question in the United States sufficiently illustrate and enforce my observation, as it applies to the social, economic and political condition of affairs in the countries affected to-day. The question of race has consumed more of the attention of those governments, of their men of thought, and been productive of more expenditure of vital and material resource than all other questions combined. In each instance the argument ranking all others has been, that the offending minority race was of inferior origin, alien character, and unassimilable; and in each instance the argument was speculative rather than positive as to the major premise.

The argument of fundamental and ineradicable inferiority of mental and physiological properties cannot be safely lodged against any race, simply because no civilized race to-day but must pause dumbfounded in the presence of the historical fact that it was a savage before it was a civilized people. What one race has accomplished, given similar environment, opportunity, and length of time, another race can accomplish, unless we reject the doctrine of the unity of the human family and the fatherhood of God, evidences of the verity of the former being too numerous to admit of disputation, however the latter may gyrate in the nimbus of dogmatic contention. The physical and mental properties of the lowest and the highest form of man are so unmistakably similar as to establish beyond the possibility of successful contradiction the original oneness of the race. If it had a common origin, the differences apparent in the variant tribes

* Mr. T. Thomas Fortune belongs to the African Race and is the Secretary of the Afro-American League of the United States and the President of the Afro-American League of the State of New York.—Ed.

* "Natural Religion," p. 212.

are necessarily adventitious rather than germinal, in so far as they relate to mental and physiological growth or ungrowth. We must therefore look to other than radically fundamental strength on the one hand and weakness on the other for an explanation of the superiority of European over Asiatic growth, and of the latter over that of African growth. While Europeans owe a great deal to climate, they owe vastly more to their contiguity one with another, the interchange of ideas and of the products of industry, and the friction consequent on the life and death competition produced by these. Isolate any one of the strong governments of Europe to-day, as Africa has been isolated, and its people would by the natural law relapse into savagery and possibly become extinct in the course of the ages. The interminable conflicts of the three distinct peoples of the British Islands did more to develop the British character of to-day than any other influence, the contiguity of the continent of Europe not excepted.

The African problem in the United States, like the Irish problem in Great Britain, has for more than a hundred years been a cause of furious contention, and is no less so to-day than it was in the beginning, albeit it has assumed an almost entirely different phase to that which confronted the earlier statesmen of the Republic. We have long since passed beyond the sentimental phase of it around which the hosts of Anti-Slavery gathered. We have left the battle ground of slave versus free labor. That this is true indicates progress. We now stand upon the ground of rational, humane discussion of the Afro-American's right and capacity to be recognized as a coequal force in our heterogeneous population. Does he possess the qualities which are necessary to make a good citizen? Is he qualified as a freeman to maintain his position in the fierce and unnatural competition incident to our civilization, in which the brutality of the savage has given place to the savage cunning of the brute, in which self preservation has been deified as the mammon of unrighteousness, and the devil take the hindmost has become the ruling passion in the great scramble for something to eat and to wear? These are the phases of the question now to be considered and answered.

In several numbers of the *The Open Court*, Professor E. D. Cope has labored to establish the negative side of the proposition here laid down; but, it seems to me, that he knows vastly more about the Negroes in Africa than he does about those in the United States; more about the "black savages" of the "Dark Continent," than about the black and colored people of the United States, who are as far from being savages as their African ancestors, in the main, were from being civilized, a fact utterly ignored by Profes-

sor Cope, but which was very plainly perceived and set forth by Mr. Staniland Wake. For instance, Professor Cope states his position as follows (*The Open Court*, No. 146):

"I repeat again what appears to me to be the facts of the case. The characteristics of the Negro-mind are of such a nature as to unfit him for citizenship in this country. He is thoroughly superstitious, and absolutely under the control of supernaturalism, in some generally degrading form, and the teachers of it. He is lacking in rationality and morality. Without going further these traits alone should exclude him from citizenship. Secondly, these peculiarities depend on an organic constitution which it will require ages to remove. Corresponding qualities in the lower strata of the white race are modified or removed in a comparatively short time, on account of superior natural mental endowment. Thirdly, if he remains in this country he will mix with the whites until in half a century or less, there will not be a person of pure Negro blood in it. It follows from this that there will be, in accordance with the usual amount of increase, an immense population of mulattoes, where there should be an equal number of whites. The deterioration thus resulting would be disastrous on our intellectual and moral, and consequently on our political, prosperity."

To this Mr. Wake replies (*The Open Court*, No. 148):

"It may be regarded as an absolute certainty. And the very fact that he has had a longer period in which to improve than any other race, and yet has failed to do so, is no discredit to the African. For, through the whole long series of ages he has been subjected to climatic and other influences which have not only hampered him in the race of life, but have absolutely prevented any improvement. Remove these influences and replace them with others fitted for progress, and there is no reason in the organic constitution of the Negro why he should not in the course of a few generations improve in his mental organization, so as to be quite as well fitted to exercise the functions of citizenship as a large number of the white inhabitants of the United States. I have seen it stated that the Negro of this country shows in his physical structure an improvement over his imported ancestors. The mental improvement which accompanies the progress of education, and the constant association with the white race, must be attended with improved physical development."

Professor Cope will have some small difficulty in establishing the soundness of his statement that the Afro-American "is thoroughly superstitious, and absolutely under the control of supernaturalism in some generally degrading form, and the teachers of it." I

challenge the Professor to produce his proofs in substantiation of this sweeping indictment. I maintain that the reverse, while not wholly is relatively true. I maintain that the Afro-Americans are, as a whole more devout and rational than the generality of white persons about them, especially the lower class, if there can be any lower class where such a woful lack of moral elevation of character is to be found among a class of whites. "He is lacking in rationality and morality," may be disposed of in like manner. Professor Cope evidently does not know anything whatever of the irrational and immoral character of the poor whites of the Southern States. The superstitious practices ascribed to Afro-Americans have never been observed by me, and I was born and reared among these people. And I challenge Professor Cope to cite an authenticated case of such practices among these people. The blacks of the South sustain more churches than the whites do, and they are more devout, after a fashion, than the whites are. And, yet, neither the one nor the other stand upon the high rational and moral ground we could wish them to. Their religious professions and practices are of a crude nature and their morality is still too largely in the primitive state.

When he apprehends that a century hence the Afro-Americans will be a race of mulattoes, "where there should be an equal number of whites," Professor Cope forgets that it takes two to make a bargain, and that under existing social and civil laws, the result that vexes his soul cannot be accomplished except by the moral obtuseness on the part of the whites, men and women, which he ascribes to the blacks. Is not the receiver of stolen goods as bad as the thief? Even so? But Professor Cope need not lose his appetite for fear that this apparition will appear before him as his imagination conjures it. If the Afro-American were the degraded creature he conceives him he would have something to fear. But, being false in one thing, he is very largely false in all. The fact is that Afro-American women are ceasing more and more to submit to being the convenience for white men. They are developing the self-respect Professor Cope presumes they are absolutely devoid of, and are reducing every year in that way the crop of mulattoes. They will continue to decrease, until the unnatural barriers to the consummation of legal unions are removed.

I maintain that the Afro-American is no more to be compared to the original batch of Africans forced into this country than the present inhabitants of New England are to be compared to the pilgrims who discharged themselves out of the Mayflower onto Plymouth Rock. They have been two hundred years on the continent, and will be here when Gabriel sounds the bugle call for the nations of the earth to stand forth to be judged according to the deeds done in the

flesh. They are not going to Africa, as Professor Cope thinks they should, nor to the West Indies as Mr. Wakeman thinks it well that they should do, and for the sufficient reason that they are very well satisfied right where they are.

The progress the Afro-American has made since his manumission in all the relations of our civilization is a sufficient answer to all the objections to his presence urged by Professor Cope and manfully combatted by Mr. Wake. The limitations of this article will not permit me to discuss his moral, religious, civil and material development; but enough has been said to show that there is more than one side to this as to most questions.

FAIRY TALES AND THEIR IMPORTANCE.

I FIND in No. 156 of *The Open Court* a vigorous appeal of Mr. Rood to do away with ogres and fairies, lest the imagination of our children should be poisoned by unreal and fictitious ideas. Mr. C. Staniland Wake has answered Mr. Rood, and calling attention to the educatory influence of fairy tales, admonishes us not to be in too great a hurry to do away with ogres and fairies. The subject is of great practical importance and a few words of consideration, which suggested themselves to me on the perusal of the articles, may not be inappropriate.

Mr. Rood takes the ground that everything unreal is untrue; therefore it is obnoxious and should not be allowed to be instilled into the minds of children. I recognize as good the principle of removing everything untrue from our plan of education. The purpose of education is to make children fit for life, and one indispensable condition is to teach them truth, wherever we are in possession of truth; and, what is more, to teach them the method how to arrive at truth, how to criticise propositions, wherever we have not as yet arrived at a clear and indisputable statement of truth.

Allowing that fairy tales are unreal and may lead the imagination of children astray: are they for this very reason untrue? Do they not contain truths of great importance, which it is very difficult to teach children otherwise than in the poetic shape of fairy tales? I believe this is the reason why in spite of so much theoretical antagonism to fairy tales they have practically never been, and perhaps never will be, removed from our nurseries. There are no witches who threaten to abuse the innocence of children, and there are no fairies to protect them. But are there not impersonal influences abroad that act as if they were witches, and are there not also some almost unaccountable conditions in the nature of things that we meet often in the course of events, but which act as if they were good fairies to protect children (and no less the adult children of nature called men,) in dangers

which surround them everywhere, and of which they are not always conscious?

Science will at a maturer age explain such mysteries, it will reveal to the insight of a savant that which is a marvelous miracle to the childish conception of an immature observation. But so long as our boys and girls are not born as savants, they have to pass through the period of childhood, they have to develop by degrees and have to assimilate the facts of life, they have to acquire truth in the way we did, when we were children, as the race did, when humanity was in a state of helpless childhood still.

Did not religion also come to us in the form of a fairy tale? And is not a great truth contained in the legend of Christianity? The belief in the fairy tale will pass away, but the truth will remain.

The development of children, it has been observed, is a short repetition of the development of the race. Will it be advisable to suppress that stage in which the taste for fairy tales is natural? Is not a knowledge of legends, fairy tales, and sagas an indispensable part of our education, which, if lacking, will make it impossible to understand the most common place allusions in popular authors? Our art galleries will become a book with seven seals to him who knows nothing about the labors of Hercules or the Gods of Olympus. Will you compensate the want of an acquaintance with our most well-known legends, sagas, and characters of fiction at a later period, when the taste for such things has passed away?

I met once an otherwise well-educated lady who did not know who Samson was. An allusion to Samson's locks had no meaning to her, for she had enjoyed a liberal education; her parents being free-thinkers, she had never read the Bible and knew only that the Bible was an old-fashioned work, chiefly of old Hebrew literature, which she supposed was full of contradictions and without any real value.

A total abolition of fairy tales is not only inadvisable, but will be found to be an impossibility. There are certain classical fairy tales, sagas, and legends, which have contributed to the ethical, religious, and even scientific formation of the human mind. Thus not only many stories in the Old and the New Testament, but also Homer, Hesiod, and many German and Arabian fairy tales have become an integral part of our present civilization. We cannot do away with them without at the same time obliterating the development of most important ideas. Such fairy tales teach us the natural growth of certain moral truths in the human mind. These moral truths were comprehended first symbolically and evolved by and by into a state of rational clearness.

I do *not* propose to tell children lies, to tell them stories about fairies and ogres and to make them be-

lieve these stories. Children, having an average intelligence, will never believe the stories, however much they may enjoy them. The very question: Is that really true? repeated perhaps by every child, betrays their critical mind. Any one who would answer, "Of course, every word is literally true," would be guilty of implanting an untruth in the young minds of our children. We must not suppress but rather develop the natural tendency of criticism.

While we cannot advise the doing away with fairy tales, we can very well suggest that the substance of them may be critically revised, that superfluous matter may be removed and those features only retained that are inspiring and instructive.

P. C.

A VISIT TO JOLIET.

A FEW WORDS ABOUT THE ANARCHISTS.

A FEW days ago I visited the penitentiary at Joliet where the warden kindly permitted me to see the institution. One of the officers, Mr. Gallus Muller, a gentleman excellently informed, not only about penal science generally, but also about the many details of the discipline and management of the prison, acted as guide and gave me valuable information.

I do not intend here to give an account of all the incidents of my visit, but I believe it will be of general interest to say a few words about the so-called anarchists confined in Joliet. I met two of them incidentally—Schwab and Neebe; but Fielden I did not see. He was, for some reason unknown to me, absent from the place where he usually works.

The warden had told me that the much talked of Anarchists were a great deal more harmless than was generally believed. They had never as yet infringed upon any of the prison rules and proved to be very tractable.

Oscar Neebe was employed as a hospital attendant. He gives the impression of a vigorous character and shows much intelligence. I enjoyed a talk with him of about twenty minutes. He reported his experiences with his fellow prisoners. He had tried to exercise a moral influence upon one of them—a thief convicted for a second time, who had acted more from moral weakness than from evil intention—a case very common among criminals. We also discussed the labor problem and he grew warm on the subject, but without excess and without the least revengeful feeling. Speaking of the Haymarket meeting at which he was not present, he said that some "crank" must have thrown the bomb. At my suggestion whether that crank might not have been Ling, he replied that he did not know, as he had not been an acquaintance of Ling's until they met in prison, and Ling had impressed his fellow-prisoners as a man mentally unbalanced.

I found Schwab in the prison library where he is engaged as book-binder. Schwab is a good-natured, simple-minded fellow, with a taste for reading and study. There is no possible danger in having him at large. There is a touch of idealism in his character, and it is this ideal trait which inveigled him into what he now confesses to have been rash and inconsiderate speeches.

Both Neebe and Schwab told me that they were well treated and had no complaint to make against the officers of the prison.

A movement for the pardon of Neebe is being advocated by many influential men who have no sympathy with anarchism. It is to be hoped that the movement will be successful and that such a harmless man as Michael Schwab will not be forgotten.

P. C.

CORRESPONDENCE.

A LAST WORD ABOUT OLD CHIVALRY.

ANSWER TO GENERAL TRUMBULL.

To the Editor of The Open Court:—

It would take up too much room minutely to answer the courteous reply of General Trumbull. I beg to present a few short remarks only.

I am glad to see that the divergence of opinion between my opponent and myself is after all less radical than superficial. General Trumbull seems to have, at the bottom, a correct estimate of the real character of chivalry when he says: "Chivalry as a sentiment was humane. . . . the standard of chivalry was morally high," . . . nothing truer could be written. On this fundamental and essential point we are then in perfect accord.

The personal conduct of the old Knights, not Chivalry, is then that which awakens the ardent opposition of my opponent. Let us see if that opposition is really just. Certainly there were bad Knights—

*"Chevaliers félons et méchants
Qui traitaient des complots maléfaisants."*

Everybody knows that. But that proves nothing against chivalry and the good Knights any more than the escape to-day of rascally cashiers into Canada, proves against the honesty of banks and of faithful cashiers.

But even the conduct of honest Knights, *"Sans peur et sans reproche,"* is very severely judged by General Trumbull. He perhaps accepts too easily the facts as written by prejudiced and biased writers, or he forgets to take into account the times, ideas, customs and general conditions among which lived and acted these ancient good Knights. This necessarily perverts his candid opponent's judgment. Exactly as if the General visiting the Institute of Fine Arts, of Chicago, commenced by studying and admiring the exquisite American statue of John Harvard, after that forever and inflexibly to carry with him this same artistic modern standard of beauty, to apply it to, and judge by it, the great master pieces of Egyptian, Greek, and Roman statuary.

Before all it is necessary to remember that chivalry and the Knights belonged not to the old Roman civilization, refinement and decrepitude. They sprang from that young, rude, healthy and generous German barbarism by which western Europe has been renovated and rejuvenated. To it the foremost nations of this day, including North America, are indebted for their vigorous mentality, love of truth and liberty. Why can we not be a little more indulgent for the "barbarism" of the rude, impulsive old Knights, when we ourselves, in this very century, still possess so strong a flavor of that blunt barbarism, that more supple and polished Italians, when among themselves, designate us—Americans, English, Germans and French—as "the barbarians."

Old Knights were illiterate, as remarks General Trumbull, but they were nevertheless thinkers and strong thinkers too. Charlemagne, the author of the "Capitulaires," could neither read nor write, he signed parchments by striking on them the mark of the pommel of his sword.

I am not an enemy of business or trade. I do not underrate its necessity, but I object to its ever increasing obtrusiveness. Business absorbs every day more and more all the energy and thought of mankind, crowding everything else to the wall. It was not by an "aristocratic" prejudice that deep meaning old mythology gave the same god, Mercury, to the robber and to the merchant it was because they both seek to prey on others by sharp, cunning, to possess themselves of riches sowed and harvested by the labor of others, without an equivalent, or any work of their own.

If General Trumbull will study comparatively antique statuary,

he will soon distinguish the different characters of the different ideals, that of Mercury from those of nobler deities. As long as something better, more just, is not found to replace it, trade is necessary, but it is none the less a "legal robbery combined with gambling"—a robbery in the economical sense of the word only, and it is, of course, *objectively* only and not *subjectively* that an honest merchant is a "robber."

If, to judge well of past centuries, to understand correctly their institutions and men, it is *absolutely* necessary to study them with archeological knowledge and tact—without any anachronistic thought or standard—to transport ourselves into the very midst of these old centuries and to breathe their ancient atmosphere, it is not the less necessary, on the other hand, when desiring to understand correctly and judge of our own times and customs, to recede from them, to seek the correct point of view, as when studying a work of art. Viewed from too far or too near, nothing can properly be seen and understood.

I entertain not the least doubt that if General Trumbull will only take the trouble to step a little closer to old chivalrous ages, and a little farther from our modern mercantile, feverish competitive society, I shall have the pleasure of seeing his sober judgment in perfect accord, not with the few detractors of old chivalry, but with the great historians and poets who have extolled it, nay with the unanimous judgment of the civilized nations, among whom to say of a man and of his actions that they are "chivalrous," is the very highest praise that can be made of them.

F. DE GISSAC.

FATALISM AND DETERMINISM.

To the Editor of The Open Court:—

In your issue of August 21st, Dr. Montgomery says:

"You set out to defend some kind of preconceived faith; for instance, a belief in the existence of an evolution-governing god-like 'All,' and—against your strongest convictions on the other side—you will find yourself inextricably involved in pure Fatalism, the deadliest of all creeds."

To assert that there is "an evolution-governing godlike All," does really land us into the arms of "pure Fatalism"; but instead of fatalism being "the deadliest of all creeds," it is really the deadliest foe of all creeds, for it unmistakably forces us to take an invulnerable position upon the Monistic Rock of Ages. The demonstration of Monism is not complete without Fatalism. By Monism all things have their roots in one—in the "All"—just the same as all kinds of vegetation have their roots in the earth. Fatalism, Monism and Evolution are bound together by ties which no logic can sever. Evolution has nothing to do with the false doctrine of the hereditary transmission of acquired faculties, neither has Monism. From the Evolution-Monistic standpoint, all faculties are evolved. The doctrine of acquired faculties is synonymous with the religious doctrine of free-will, and as long as men of science indulge in it they will be in a straight betwixt two and a reason cannot be securely enthroned. If things are evolved they cannot logically be acquired, and if Monism is true then Fatalism is a fact. The tallest tree does not acquire its height, the brightest orb its lustre, the costliest gem its value, the hardest rock its hardness, the swiftest animal its swiftness, nor the most moral man his morality. All these are evolutions of the "All"—the fruits of fate, and from no other basis of reasoning can true Monism be successfully defended. The united testimony of Nature in every domain is, that all great things do not come by acquirement; they are evolutions of that Power which resides in matter. What men call acquirements are simply the results of the operation of the power which is continually at work in all organisms and environments. Character is not acquired any more than form is—any more than youth and old age are. The beasts do not acquire their specific and peculiar vicious characteristics, then why should that charge be laid at the door of man?

I respectfully say to Dr. Montgomery that the Fatalism which he so seemingly abhors will yet become the head of the scientific corner—not that Fatalism which teaches men to sit and wait, but that which teaches of that Power which forces mankind to better conditions and states.

JOHN MADDOCK.

[We distinguish between Fatalism and Determinism. That view which Mr. Maddock calls Fatalism, viz., that everything is determined by law is usually called Determinism. Fatalism is that kind of Determinism which overlooks that the acting individual is also a factor by which its fate is determined. Fatalism (not as presented by Mr. Maddock), but as it is usually understood, is indeed, as Dr. Montgomery says, "the deadliest of all creeds." If the Mussulman breaks his leg, he does not send to a physician to replace and cure the fracture; he says: "It is my kismet that I broke my leg, and if Allah wishes to cure the fracture he will cure it whether or not a physician is called for."—Ed.]

BOOK REVIEWS.

PHILOSOPHY IN HOMEOPATHY. By Charles S. Mack, M. D. Chicago: Gross & Delbridge.

We have here an Essay on Homeopathy that treats of the question *Similia Similibus Curantur?* with certain introductory matter, the most important of which consists of two lectures on homeopathy as the only system of curative medicine. The subsequent part of the book contains a practical address to some students in the Department of Medicine and Surgery of the University of Michigan, in answer to certain written questions. Such a book as this could not be properly reviewed without entering into the discussion between the homeopaths and their opponents. This would be out of place in the pages of *The Open Court*, but we may give a quotation from Dr. Mack's Essay to show what is called the philosophy of homeopathy. After drawing an analogy between disease and moral evil, and referring to a Primal Source of health and goodness, it is said, "if these beliefs are correct, man to be radically reformed, must confess his sins: the strength to slay the evils to which he inclines, and the goodness which replaces in him the evils from which he is radically reformed must come from the Prime Source of good. A recognition of this dependence and a confession of sins are essentials of prayer. It seems as if one does in taking a homeopathic drug that which is analogous to confessing a sin." We have heard of the power of faith in connection with the administration of physic, and if confession of sins is to be added, the healing art will again become as it was in the primitive age of Christianity, a function of the priest! Fittingly this book, which is addressed to the General Reader as well as to the Medical Professor, ends with an appendix containing two articles reprinted from "The New-Jerusalem Magazine," which refer to applications of certain ideas of Emmanuel Swedenborg.

Ω.

THE ALADDIN OVEN. By Edward Atkinson. Boston, Mass.

This little pamphlet of fifty-seven pages is the description of a fuel and food saving oven, invented by Mr. Edward Atkinson of Boston. It is also a cookery book to correspond with the principle of the oven. In the field of Political Economy, Mr. Atkinson has obtained celebrity, not only for the logic of his argument and his mastery of statistics, but also for the charm of his literary style, and his ethical treatment of what is erroneously supposed to be nothing but the mercenary science of self-interest.

Mr. Atkinson, not satisfied with the fame he has achieved in helping to raise Political Economy to the plane of moral science, proposes to elevate Kitchen Economy to the same level. Excepting rare old Burton, who died a quarter of a thousand years ago, there is no man more competent than Mr. Atkinson to show the intimate relations between food and morals, cookery and religion, the ailments of the body and the ailments of the mind. In Mr.

Atkinson's theology, there is more grace in the sacrament of bread, when the bread is made of good flour and well baked, than when it is not. Although to the unenlightened vision roast beef appears to be of the earth earthy, a minister unto the corporeal senses only, Mr. Atkinson believes in the spirituality of a tender sirloin, if it be well done; but not otherwise. He also believes that it is not only wise but virtuous to save every atom of the Creator's bounty, and that waste is wickedness.

If, as the ancient legend has it, he is a benefactor who maketh two blades of grass to grow where only one did grow before, so equally is he who maketh a ton of coal do double duty, and who teaches how from a single ration of flour, to make a double ration of bread. Mr. Atkinson does not claim to do exactly that, but he does claim to make a great saving in the cost of the kitchen, and in the labor of the cook. In a word the dual principle of Mr. Atkinson's oven is "economy of fuel, and economy of food material"; and he claims that by his invention he has realized this double saving. In support of his claim he presents many enthusiastic testimonials from reliable persons who have tried the Aladdin oven. Laying aside all sentiment and metaphysics, and reducing the argument to a practical problem of dollars and cents, Mr. Atkinson says: "At the present price of flour, family bread can be made in this way, at a cost for the materials and the fuel of less than two and a half cents per pound of bread."

Irritated and annoyed by the expensive loss of caloric resulting from the ordinary methods of cooking food, Mr. Atkinson applied his genius to the invention of an oven which would "first catch the heat, and then convert it into work without waste." This oven appears to be a cupboard with shelves in it, the whole made of iron properly lined, so as to preserve for any length of time the exact temperature necessary to cook the food placed upon the shelves, no more, no less; and to cook it in such a way that the flavor of each particular article shall be preserved. In one oven, Mr. Atkinson triumphantly cooked at the same time, steak, chicken, potatoes, rice pudding, and soda biscuit, in such a manner that the flavor of one was not given to the other; and "the reason why many kinds of food can be cooked in the same oven at the same time is because the heat is not raised to so high a point as to distill the juices or dissociate the fats; therefore there is little or no smell and no loss of flavor by distillation."

The fuel for the Aladdin oven is gas or kerosene oil, burned in a lamp so constructed that by the easy process of raising or lowering the wick, the precise degree of heat required is obtained. Mr. Atkinson cooked last summer for a family of ten persons, and he estimated the cost of fuel per meal to be about a quarter of a cent. While the rest of us may not be able to economize with like success, there can be no doubt that the cost of cooking by the Aladdin oven must be very much less than by the ordinary iron stove, while it must be easier to regulate the heat in the oven than in the stove. Mr. Atkinson's comparison between those instrumentalities of cooking may be stated in his own words: "The difficulties in the use of the common stove or range consist in the varying degree of heat, which is due to the fact that the combustion of coal cannot be controlled with any certainty; whereas very simple instructions in the application of heat from a lamp or gas burner in the Aladdin oven will suffice, because with a given lamp and an oven of given capacity the degree of heat is under absolute control."

It is with the ethical and religious character of this invention that we are most concerned. When we remember how greatly temper influences conduct, and think how the perversities of the ordinary cooking stove provoke nervous irritability, spite, and sometimes desperate profanity in the cook, what a beneficent moral agent is a cooking apparatus that cares nothing about the draft, nor whether the wind is east or west; that has no sullen spells, refusing to burn sufficiently at one time, and savagely burning too

much at another; that asks no aid from kindling-wood, but lights up instantaneously, and is willing to quit burning as soon as its work is done! And when we reflect upon the sins that spring from dyspepsia alone, how can we sufficiently reward the missionary who comes to our heathen kitchens with an oven capable of "rendering food material fit for consumption in the most nutritious way"! Digestion converts bread horn of the ground, into thought, conduct, principle, and makes them good or bad. There is much useful information and philosophy in Mr. Atkinson's pamphlet outside his explanation of the oven, and no doubt he would gladly send it to any person sufficiently interested in the subject to write to him for it.

M. M. T.

ON THE RELATIVE ADVANTAGE OF TUBS WITH BOTTOMS AND TUBS WITHOUT. Being a Rambling Letter from a Cooper's Apprentice to a Swedenborgian Clergyman. New York: Printed for the author; 20 Cooper Union.

This is written first of all for Swedenborgians, and then for those who take an interest in knowing the views entertained by the eccentric Swede on the relation of man to the universe. Regarded from this point of view, the Cooper's Apprentice has furnished a very thoughtful work, although it is hardly one which *The Open Court* can endorse as a statement of scientific truth. The author says in his *Foreword*, "illiterate people do not lose their thought in words; they think by things, i. e., by visible mental pictures. But men of letters, if they are not at the same time men of a practical and, I may say, mechanical turn of mind, rarely think by mental pictures, but mostly by words, and they lose their thought in words, and are unable to think with coherence" upon the fundamental subjects treated of by Swedenborg, "because these subjects are deep—deeper than Thought for the most part—deep as Fact itself." We have here a reason why such subjects require for their comprehension minds of a mystical temperament, minds that do not seek for scientific proof, but have a ground of reason and fact of their own. It is certainly amusing to find men of thought being charged with want of coherence because they use words instead of mental pictures. If the author had shown a little more thought in supplying his book with a table of contents, its value from a purely material standpoint would have been considerably added to.

Ω

The Criticism Monthly Magazine, of which we have received the first number, is published at Chicago, and is in fact the former amateur paper *Germania*, under a new name. The articles in the present number are well written and are apparently all by ladies. The most important are "Bayard Taylor as a Poet," by Fannie Kemble Johnson, and "Influence of Germany upon Modern Thought," by Caroline K. Sherman. Amateur journalism is to be a special feature of the magazine, and this alone ought to secure it a successful career.

NOTES.

It is intended to make a change in the form of publication of *The Open Court*. *The Open Court* will continue to be published weekly, but it will be reduced in size (namely to eight quarto pages). The magazine will be made more popular than it was before. The more abstract and specifically scientific productions will find a fitter place for publication in a new Quarterly called *The Monist*, the first number of which will appear October 1st, 1890.

The contents of the first number of *The Monist* will be as follows:

1. "Mr. A. R. Wallace on Physiological Selection."
By Geo. J. Romanes, LL. D., F. R. S.
2. "The Immortality of Infusoria."
By Alfred Binet.
3. "On the Material Relations of Sex in Human Society."
By Prof. E. D. Cope.

4. "The Analysis of the Sensations"
By Prof. Ernst Mach.
5. "The Origin of Mind."
By Dr. Paul Carus.
6. "The Magic Mirror."
By Max Dessoir.
7. "The Psychology of Harald Høffding."
By W. M. Salter.
8. "Literary Correspondence. France."
By Lucien Arédat.
9. Book Reviews.
10. Philosophy in American Colleges and Universities.
11. Periodicals.

The Open Court will continue to publish short ethical sermons, popular expositions of scientific subjects, timely notes on current topics, book reviews, etc. Holding that the monistic solution is the only tenable position, it will in the future as before, remain open to the discussion of the principal problems of philosophy, religion, ethics, and sociology.

* * *

A few words suggest themselves with reference to the letter of Mr. Ingham, published in the last number of *The Open Court*: it is concerning the idea of God. When we define God as "the Ethical Life of Nature," we do not mean to limit God to one special part of nature. For God is the being of everything that is, be it good or evil; he is All in All. We meant to characterize for man the nature of God. God is All-Existence in so far as it serves as a basis for ethics. We make the same objections to saying that the All-Being is moral, as our correspondent does. The All-Being is the standard of morality; it is neither moral nor immoral, but we are moral or immoral according as we do or do not conform to it.

* * *

Prof. H. D. Garrison of this city will, on Sunday next, September 28th, and the two following Sundays, at 3 P. M., lecture at the Grand Opera House, Chicago, on the *Genesis of the Heavens*, the *Genesis of Life*, and the *Genesis of Man*. We understand that the first lecture will comprise a general survey of the heavenly bodies and an attempt to account for the evolution of our solar system. All the lectures will be fully illustrated, and many of the views which will be used are made by Mr. Burnham, of the great Lick Observatory. Views of the Observatory and of the great Telescope will also be shown. Prof. Garrison is well known in Chicago as a very popular teacher. We know him as a pleasant speaker at the Evolution Club, and his lectures ought to attract large and appreciative audiences.

The Sunday Review, which is the organ of the London "Sunday Society," contains in the present number, (No. 55, Vol. XIV, July, 1890,) the annual address delivered by the President, Professor G. J. Romanes (of which advance sheets were sent us by Mr. Mark H. Judge, the honorary Secretary of the society), and a full report of the proceedings at the meeting. Professor Romanes showed the weakness of the arguments of those who oppose the opening of Museums, Art Galleries, and Libraries on Sunday, very fitly quoting the remark of M. Guyot, the Minister of Public Works in Paris, made in reply to an inquiry by the Honorary Secretary, that it was difficult for him "to appreciate the necessity of considering this question as having two sides." The opening of Museums and Galleries in France is helpful to the extension of Sunday rest, and the cessation from ordinary work on Sundays in that country is markedly on the increase.

Mr. F. May Holland begs us to state to our readers that the sentence in his article No. 159 of *The Open Court*, referring to the number of sheep west of the Mississippi in 1867, should have been written so as to show that there were then east of the Mississippi and Missouri more than twice as many sheep as there are at present.

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CARDINAL NEWMAN.

BY MONCURE D. CONWAY.

II.

CHARLES KINGSLEY, in his attack on Dr. Newman, made a mistake whose recoil on him ought to be instructive to liberal thinkers. Kingsley could not conceive that a great scholar, a man of genius, might be genuinely and thoroughly convinced of what to him (Kingsley) appeared puerile superstitions, and he virtually impugned the sincerity of Newman's position in saying that the great Oratorian taught that truth need not be the chief virtue of the Catholic clergy. It turned out that Newman was more sincerely in his position than Kingsley, whose sword, so gratuitously seized, broke in his hand. After reading Newman's *Apologia*, evoked by that controversy, it is impossible to doubt that its writer was a sort of a religious Mithridates,—he had lived on what rationalism would call mental poisons until they were his natural food. It would appear that even in early life he hunted about for signs and wonders as other boys did for birds' nests. As his sophistication went on with his education at Oxford, the Bible did not contain half enough miracles for his insatiable love of the marvellous, and in the end he naturally added the vast supernatural lore of Catholicism. Such a man is not to be censured, still less suspected of insincerity, but to be studied as an invaluable specimen of "reversion." Where he stood the whole learned world once stood. In the next century it will be as extraordinary to find an evangelical believer, of scholarship and commanding ability, as it was to find this phenomenal Newman. Of course, I am speaking now of real religious believers, and not of the retained pulpit attorneys of dogma who will always be in demand, and increase in talent as their task of professional defence becomes more difficult. But Newman threw up his brief for the sake of his personal conviction. It was well to take a good look at him; he was probably the last man of anything like the same power that will ever believe his creed. And it is well to take a good look at Gladstone, who is pretty certain to be the last unprofessional champion of orthodoxy, of like eminence, unless in some case of reversion. The difference between Newman and Gladstone is that the latter is merely a survival,—the last evangelical survivor among the great men of Europe,

except the pulpit-attorneys; whereas the late Cardinal was an example of reversion to the original type.

Professor Francis W. Newman, the late Cardinal's brother, whose friendship I have enjoyed many years, told me that when they were young clergymen, his relation to his brother was affectionate. Indeed, John Henry wrote a poem to his brother:

"Dear Frank, we both are summoned now as champions of the Lord.
Enrolled am I, and shortly then must buckle on thy sword:
A high employ, not lightly given—
To serve as messengers of heaven.

Oh, may we follow undismayed where'er our God shall call!
And may His Spirit's present aid uphold us lest we fall!"

When Francis—so he told me—once expressed a doubt on some point relating to the authority of the Church, his brother was alarmed and said, "Take care! if you go so far you will go farther." Francis replied, "I will go farther when I see farther." So at eve did the two ships speak each other, and in the morning, as Clough said, were two towers of sail "scarce long leagues apart descried." It was clear that the ages of faith had transmitted to the mind of John Henry Newman a stony deposit which became his touchstone of all things. As time went on this inner marble, quarried from the ancient ecclesiastical formation, became an image, carved by his genius and polished by his scholarship. It was his Galatea, and under his passionate devotion took (for him) life as the Virgin Mary.

In studying the evolution of Newman we have to consider the evolutionary factors which in all ages and races show good men and women worshipping cruel gods. Such deities were originally created by savage man in his own image. They are not religious but cosmological creations. Through terror all the resources of primitive man were organized around such self-evoked phantoms, so that they became the foundations of every social and political order. When higher minds arose, and began to question these heartless gods, it was assailing the social foundations, the political order, and endangering vast interests. Consequently the skeptics were killed off, and the abject believers alone remained to propagate the species. "He that believeth not shall be damned," was sacred law, and the unbeliever's future fires were begun on earth. For many centuries there went on a survival of the credulous. Heretics could find no wives; priests

would not marry them; only belief was bred. Thus all scholarship, all thought, and science, became servants of superstition. The type was formed of a piety whose supreme virtue was abject assent, the Abrahamic Sacrifice of Reason.

Fortunately, however, the various nations were so separated from each other, by distance and hostility, that each developed a somewhat different type. Each had consecrated its own variety and hated every other as heresy. But as, with increasing communication and migrations, these types mingled in each country, some *modus vivendi*, some principle of mutual toleration, had to be reached. Under toleration reason began to claim rights, science to grow, and protestant movements asserted themselves. In the course of time the protestant movement became so strong that the English church was compelled to compromise with it, as the only means of preserving its power, and its wealth,—which to-day amounts to a thousand million dollars. This amount of money constitutes an immense "breeding" power. The universities, the spiritual nurseries, were able to breed religious teachers as a farmer breeds sheep. The modern church needed sheep which should be protestant, scholarly, scientific; but while growing such fine wool, their logical legs must be bred too short for them to jump over the church palings. They must not stray into Catholicism on one side, nor into Unitarianism on the other; but they were free to enjoy either inside the church, where ritualistic and rationalistic pastures are provided.

But in this process there is no escaping the possibilities of reversion to the original type. Such was the late Dr. Newman. His intellectual legs were not bred short enough, nor those of his brother, for confinement in the pale of the church, while their moral enthusiasm was over-bred; so they leaped into their congenial pastures—one into modern theism, the other into mediævalism. But that which makes the case of Father Newman so phenomenal, if not unique, is that there was no atrophy of reason. He carried into his realm of mediævalism a fully developed and polished intellect, and a perfect syllogistic method, with which protestant science and culture had equipped him. But how, then, my reader may ask, could he so give himself up to irrationalities? Simply by transferring his reason to a new function. In him faith and reason exchanged functions: faith was made to do the work of reason, and reason to do the work of faith.

This may be made clearer by two brief letters written by John Henry Newman. The first was to a clergyman Oct. 9, 1845, the morning of the day on which he entered the Catholic church:

"I am to be received into what I believe to be the one Church and the one Communion of Saints this evening, if it is so ordained. Father Dominic, the Passionist, is here, and I have begun my

confession to him. I suppose two friends will be received with me. May I have only one-tenth part as much faith as I have intellectual conviction where the truth lies! I do not suppose any one can have had such combined reasons pouring in upon him that he is doing right. So far I am most blessed; but, alas! my heart is so hard, and I am taking things so much as a matter of course, that I have been quite frightened lest I should not have faith and contrition enough to gain the benefit of the Sacraments. Perhaps faith and reason are incompatible in one person, or nearly so."

The next letter was written more than forty-one years later (March 23, 1887) to a theistic minister:

"What I have written about Rationalism requires to be expanded. If you will let me be short and abrupt, I will contrast it with faith. 'Faith cometh by hearing,' by the *Word of God*. Rationalists are those who are content with conclusions to which they have been brought by reason, but 'we are saved by faith,' and even in cases and persons where true conclusions can be arrived at, those conclusions must be believed on the ground that 'God has spoken.' A man may be a true and exact theist and yet not have faith. What he lacks in order to faith is the grace of God, which is given in answer to prayer. I have written as much as my fingers will write, and more perhaps than you can read. P. S. Liberalism is the development of Rationalism. It views faith as a mere *natural* gift, the like and the consequence of reason and the moral sense; and by reason and the moral sense he estimates it and measures its objects. He soon comes to be satisfied with other men, though they ignore faith and its objects, provided they recognise reason and the moral sense. This is Liberalism."

The first of these letters is interpreted by the second. We can detect in his fear that he had not as much faith as he had intellectual conviction that his heart (which he calls "hard") was faintly carrying on the skepticism which his reason had renounced,—his intellect having assumed the rôle of faith. His dread is that his reason may have had something to do with his conversion and his convictions. There is something rationalistic, consequently sinful, in believing even Catholicism on intellectual grounds. Such belief, to be right, must be solely of God's authority, of divine grace, of faith. "God has spoken": let Logic keep silence before him. Let not reason dare to add its miserable seal to the divine word. The function of reason is thus withdrawn from the normal work of determining what is true; that is already determined by the word of God, and is received by faith as a supernatural gift. What then is the function of reason? Simply, we may suppose, to shine, so that the less brilliant believers may say, with Cardinal Manning, "No one who does not intend to be laughed at will henceforward say that the Catholic religion is fit only for weak intellects and unmanly brains."

But this casting off by faith of the restraining grace of common sense is suicidal. There was nothing to check the progress of Newman into the dark ages, which, indeed, he reached long before he reached Rome. "I do not shrink," he said, "from uttering my firm conviction that it would be a gain to the

country were it vastly more superstitious, more bigoted, more gloomy, more fierce in its religion, than it at present shows itself to be." Contrasting heretics and heresiarchs, he said: "The latter should meet with no mercy; he assumes the office of the Tempter, and, so far as his error goes, must be dealt with by the competent authority, as if he were embodied evil. To spare him is a false and dangerous pity. It is to endanger the souls of thousands, and it is uncharitable towards himself." When accused, on this passage, of wishing to reestablish the torture of the Inquisition, Newman replied that he merely contemplated banishment of the heresiarch; but in so saying he momentarily relapsed into carnal rationalism. What! banish to other lands the "Tempter," the "embodied evil," to "endanger the souls of thousands" in some other country! However, this was only when Newman was on his way to his mediæval goal. Once there, the "reversion" was complete. In the sphere of angels and saints there was no more denunciation or conciliation of the humanities.

As Emerson sang "Goodbye, proud world," and retired to his optimistic hermitage with Nature, Newman bade Nature goodbye, especially human nature, and went into his mediæval solitude. It was not in 1890 that Father Newman died, but in 1845. So far as this world was concerned,—or the only world for which his faculties had been trained, that of theology,—it could exist no more for him. His intolerance had been the fierce heat of a warrior in the battle for an English field he hoped to win. There could be no hope of winning England for Rome. Nor could there be any further search for truth: that was all known to the infallible Pope. I had a conversation with Dr. Döllinger in 1871 in which he said, that the dogma of infallibility rendered theological investigation impossible in the Catholic Church. "No man of any self-respect will investigate only to arrive at foregone conclusions." Newman's fine armor had all to be laid aside. It is not to be regretted, when one reads the ferocities of his Anglican days. Swinburne could not have described him as the one thornless rose of a thorny stock had he continued an Anglican warrior. And as for the thorny stock it is in England a thing of the past. Catholicism is no longer a militant institution. It should be credited to that Church that this same thinker who as a protestant clergyman (son, too, of a Huguenot woman) had suggested restoration of the Inquisition, when he became a Catholic wrote concerning the St. Bartholomew massacre, "No Pope can make evil good," "Infallibility is not Impeccability."

It will be seen therefore that while Catholicism was the entombment of Newman as a factor of intellectual progress, it restored to his angry face that na-

tive sweetness that makes the smile of death. He had no more controversy with a world which was being guided as it should be guided, by the Trinity and the angelic hosts. "Perfect faith casteth out all fear that hath torment." Such thornless roses are costly however; personal sweetness is hardly compensation for a lost leader. Amid the struggles of humanity, even a fierce worker is better than one devoting herculean arms to magic wafers in a cloister. Though so large a part of the man was wasted, so far as direct service is concerned, probably his indirect service,—that which would have most grieved him had he been conscious of it,—was greater than any he could have given as a liberal. When his works are forgotten, Newman himself will be read, as a writing on the wall, admonishing youth of alternatives not to be escaped. The "kindly Light" which leads on paths not seen or chosen may produce a picturesque figure, but one which can no more warm the world than a painted flame. He who would help mankind must not aspire to the smile of "angel faces," but to win smiles to the wan faces of the poor and suffering. Cardinal Manning pronounced Newman "the greatest witness for the faith," and it is true in two senses. He was a witness that his cloistered faith can, as dogma, have no open-air habitat in England. The secession of scholars to Rome which began with him, ended with him. The secession from his own Oratory began in his time, all going into Rationalism. Nay, Newman himself, seems to have felt a mighty hunger in the far land to which he had gone, and thirteen years ago returned to his Oxford home, Trinity College, which killed the fatted calf, and put a ring on his finger in the form of a Fellowship. The colleges which once changed their dinner hour to prevent students hearing his sermons, now suspended work to meet him, and hear him preach in a Catholic Chapel. Despite St. Paul's exhortations to avoid those who caused divisions, he became more friendly with his freethinking brother Francis, and fraternised with heresiarch Jowett, of the "Essays and Reviews." Two visits, indeed, he paid to Oxford, and he wandered through the western counties, visiting old friends, chiefly protestants, and meeting them with pathetic emotion. No Englishman can live on saints alone, much less on dogmas. Cardinal Newman's combination of mediæval philosophy (consecrated as "faith") with latter-day culture, represented a hybrid soul that cannot reproduce itself. The Catholic church does not aim to produce such men, and while proud of Newman's genius, always feared him. For his unworldliness amounted to imprudence in its readiness to tear away the casuistic moss which covers the repulsive dogmas on which the Church is founded. The jagged rocks were made visible by his candor without being adorned enough by his elo-

quence. The future of that Church depends on the obscurity of its dogmas and the dimness of its history. It is getting free of its antiquarian scandals by reason of their antiquity; it is liberated from political suspicion by the fortunate loss of temporal authority; there is no reason why it should not enjoy a new departure if it should throw itself into sympathy with humanity, preserve its æsthetic, ornamental, and non-sabbatarian characteristics, and leave its dogmas wrapped in Latin and in archaic phrases, "not understood of the people."

DR. CARUS ON "THE ETHICAL PROBLEM."*

BY WILLIAM M. SALTER.

THE capital point under discussion in this little volume is the basis of ethics. Dr. Carus is mistaken in saying in the Preface that it was in consequence of an editorial on "The Basis of Ethics and the Ethical Movement" in *The Open Court*, that he was invited to deliver these lectures. It was at my suggestion that the Board of Trustees of the Chicago Society for Ethical Culture extended to him the invitation, and my feeling simply was that so interesting a set of philosophical ideas as Dr. Carus was advancing in *The Open Court* should have a hearing *viva voce*, as well as through the printed page. Dr. Carus accepting, I announced his lectures on my own concluding Sunday, asking our members and friends to give them attention and careful consideration. Inasmuch, however, as Dr. Carus has taken the occasion incidentally to reinforce his earlier criticism upon the Ethical Movement; to emphasize the differences (real or supposed) between himself and those of us who are active in this movement; and indeed to take us somewhat severely to task, it becomes proper and, perhaps, necessary that I should say something by way of reply.

First, let me endeavor to understand as nearly as I can what Dr. Carus means. For our Ethical Societies the case is a grave one, in his judgment. There is something we are to do of a more pressing nature; if we do not heed the call, we shall "pass out of existence." We are not to "rest satisfied with negotiations"; we should cease a "non-committal policy"; should "speak out boldly and with no uncertain voice." We are reminded of our proper place; for, says Dr. Carus with something of a prophet's impressiveness, "There is one point you ought to understand well: The ethical movement will work for the progress of mankind whatever you do." Indeed he gives us such a sense of our insignificance that we are led to feel that more for our own sake than for the cause of progress we should apply ourselves to the all-

important task; since the cause of progress will be served in any case.

This task is to answer the question, What is the basis of ethics? Assuming that the ethical movement was started because dogmatic religion no longer serves as such a basis, he asks, What new basis do we offer? I confess to having had some difficulty in finding out just what the author means by "basis" in this relation. Speaking generally, it is declared to be "the philosophical foundation upon which ethics rests," and so "the reason why man should regulate his actions in a certain way"; it is "a philosophical view back" of ethics. We get light from a concrete illustration, namely, the old religion which once served as a basis, the 'reason why' being found in 'the will of God.' Every religion is really, according to Dr. Carus, "a conception of the world applied to practical life"; it differs from philosophy simply in that such a world-conception is treated practically and is endorsed by a whole society (instead of single thinkers). The basis of ethics thus turns out to be a certain conception of the world or "theory of the universe"; it corresponds to what is called philosophy or theology; indeed, our author makes the broad statement, "The ethical stimulus has been implanted into man by religion,"* and he adds with sufficient vigor, "any ethics without a philosophical view back of it is no ethics, but ethical sentimentality."

What "basis of ethics" does Dr. Carus himself present? For it is not mere criticism that he offers; indeed, the criticism of the Ethical Societies is but incidental, and the author's evident intention is to present a positive solution of "the ethical problem," i. e., to point out the true basis of ethics. "Religion," he declares, "will remain a conception of the world that serves as a regulative principle of action. Yet this conception will cease to be the product of an instinctive imagination, it will become a scientific system of certain truths that have to be examined and proved by the usual methods of scientific enquiry" (the italics are mine). What then is the scientific world-conception, the true basis of ethics? I confess to having been completely taken aback, when as I read on I discovered that Dr. Carus declined to answer the question, contenting himself with vaguely saying that the true philosophy will be one which is in accordance with facts, which seems equivalent to saying that the scientific system will be a scientific system. The different philosophies are mentioned, viz., "materialism and spiritualism, realism and idealism, monism and agnosticism," and the author actually approves of

* "The Ethical Problem," by Dr. Paul Carus. Three lectures delivered at the invitation of the Board of Trustees before the Society for Ethical Culture of Chicago, in June, 1890. Chicago: The Open Court Publishing Co., 1890. (pp. xii, 90).

* How much foundation such a statement has as matter of history is tolerably well known to students of Sociology and Primitive Culture. I would commend to every interested reader the article on "Ethics and Religion," by the learned Professor C. H. Toy, of Harvard University, in the *Popular Science Monthly* April (or May), 1890.

Professor Adler's proposition that an ethical movement should not commit itself to any of them. Does any reader wonder that I am at a loss to know why Dr. Carus should have taken the attitude to our societies which he has, almost twitting us on our lack of courage, suggesting that our ethics is but "ethical sentimentality," and saying that if the ethical societies do not increase as they ought to, it is because they have no definite opinion, because they lack a foundation, trying to be broad and becoming vague (x. xi)? What I had at least hoped for was an exposition of the way in which the monistic world-conception would serve as a basis of ethics; for to me personally at any rate and, I think, to many more this would have been of considerable interest. But monism is classed along with agnosticism, and materialism as one of the "thought-constructions of theorizing philosophers," (16. 17); so that after all the high notes, the vigorous charging and counter-charging we are left with the barren dictum, "The new ethics is based upon facts, and is applied to facts." Taking this into account I am not at all sure that I know what Dr. Carus means by a "basis of ethics," and as it is not wise to criticise till one knows what he is criticising, I will forbear criticism. I will not say that the author is not clear as to what he means, but generally speaking the remark of *The Ethical Record* which he quotes seems to have fresh illustration: "We think there is some lack of clearness as to what a basis of ethics means."

There are, however, two distinct questions: What is the true world conception, upon which every special science may, in a broad and rather loose sense, be said to be based; and secondly, what is the ultimate principle in ethics itself? The second question might be more distinctly stated as follows: Not what is the basis of ethics, in the sense of "a philosophical view back" of it (a theology or philosophy), but what is the basic principle in ethics? Ethics, in the popular sense, being a system of rules for conduct, it is necessary, if it is to be treated scientifically, that there should be some supreme rule, by their agreement or disagreement* with which all lesser rules should be judged. Now the most charitable construction I can put on Dr. Carus's method of procedure is that he has confused these two questions; and indeed, in the last two chapters of the book he more or less leaves the realm of world-conceptions and devotes himself to the humbler question of the standard (or what I have called the supreme rule) of right action. Yet in the treatment of this second question, I am sorry to say

that I find the author's thought more or less confused and inconsistent. Ethics, it is repeatedly insisted, must be based on facts; yet in one clear-sighted passage he says, "Ethics is *our attitude* toward the facts of reality" (the italics are mine). The latter remark seems to imply that the same facts may be looked at from different attitudes; yet if so, how are the facts themselves to decide which attitude we shall take? It is true, as Dr. Carus happily says, that "all knowledge can be formulated as an ethical prescript." For example, the knowledge that friction produces fire finds its practical application in the ethical rule: In case you want fire, produce it by friction. But the facts in the case do not in the slightest determine whether we shall produce fire; we may contemplate the facts with purely speculative curiosity and do nothing, or we may have an aversion to fire and so do nothing, or we may wish fire and then we shall produce it by the method indicated. It is evident that not all the knowledge of all the facts of the universe would by itself lead to moral action, or indeed to action of any kind; so that it would be more accurate, and so more clarifying to the mind, to say that ethics should face, regard, or know the facts of the universe rather than to say that it should be based upon them. Evidently the root-question in ethics is, what should we wish? Once knowing what we wish, the knowledge of the facts and the laws of nature is valuable to us; and once knowing what we should wish, acquaintance with such facts and laws becomes ethically valuable and we have a standard for our entire conduct. It is at this point that I find Dr. Carus's views radically insufficient; indeed, his ethics seems a something "in the air." "If," he says, "you wish to exist, obey reason," (italics are my own). But the very question is, not what or whether we wish, but what we should wish? To say, "If you wish fire, produce it by friction," does not say whether we shall so produce it; to tell us, "In order to build a house, observe the laws of gravitation," does not call us to observe the laws of gravitation; to say, "If you wish to exist, obey reason," puts upon us no obligation to obey reason. It is true most persons do wish to live and in consistency therewith we may well say that they should act in such and such a manner; but if any one says, I do not care to live, moral obligation, according to this view, ceases to have any application to him. If any one says, I do not care about my health, the laws of health are meaningless to him; if another says, I do not care about my family, the whole of family-ethics loses its validity for him. It has long been plain to me that resting ethics on our matter-of-fact wishes or instincts is not establishing ethics, but undermining it and leaving it a something "in the air." There must be a rational consideration and rational

* This rule, it is needless to say, would itself be interpreted or "based" in terms of the world-conception or theory of the universe which one holds; just as the first principles of the other sciences would be; the theist would interpret them in one way, the monist in another, etc.; but the first principles of all special sciences and special sciences are peculiar to themselves; otherwise taken they would be identical, i. e. if there is any such thing as first principles of the universe.

settlement of the question. What of our desires or wishes or instincts *have a right to rule in us*, before there can be any such thing as a scientific ethics.

Notwithstanding, however, this lack of thoroughness in Dr. Carus's treatment of the question, his discussion of some of the different standards of right and wrong is interesting. He defends the naturalness of altruistic and social motives, against those who hold that only egotistic motives are natural to man. He goes too far, it appears to me, in identifying ethics with the social duties, there being as much rational foundation for an "ought" in relation to one's self as in relation to others. He conducts an excellent polemic against those who would find in pleasure or happiness the end of all action, though he surely does an injustice to Utilitarianism in saying that "it slurs over the difference between moral goodness and material usefulness." The standard of good and bad which he appears to reach (after sundry physiological and psychological observations) is "the development of human soul-life"; whatever tends to preserve and promote this is good, while all efforts to the contrary are bad. By "soul-life" is meant the soul-life of the whole race, including all its future generations. But is not this rather vague? Is not the standard an uncertain one? "Soul-life," we are told, is made up of representations of the surrounding world and of man's relations thereto, and includes an increasing power over nature along with an increasing knowledge. But do we not require to know what type of soul-life we shall seek to further and promote? Persons of large knowledge and ample power over nature may be of one kind or another: they may be modest or vain, friendly or unfriendly, truthful or false, chaste or licentious, public-spirited or selfish. In following the injunction to preserve and promote soul-life, should we not have our minds directed to the sort of soul-life that is truly desirable? Dr. Carus does, indeed, speak vaguely of "the standard of human soul-life," and elsewhere uses the expression "health and nobility of our soul," but without indicating what he means. The point is of importance because, as the author in substance says, the effects of all our actions whether *good or evil* remain, long after we have passed out of existence, because the examples we set and the thoughts we utter, whether good or bad, live on in the souls of our friends and our children, and the motive for living for eternity, of which the author makes impressive use, would seem to appeal as much to the bad man who wishes to perpetuate his badness, as to the good man who wishes to promote soul-life of a different type. I do not say that these difficulties are insuperable, and simply record my impression of the author's failure to deal with them.

In still another sense of the word "basis," Dr.

Carus proposes the principle of truthfulness as a basis of ethics. In fact, so much "Zweideutigkeit" in the use of terms, I think I have rarely seen in any other ostensibly scientific treatise. It is difficult for me to understand further how Dr. Carus could proceed so carelessly in treating of ethical "theories." Intuitionism is identified with supernaturalism, and Paley on the strength of his theology is called an intuitionist, while he was in fact one of the founders of Utilitarianism. Hedonism is treated separately from Utilitarianism, although every form of Utilitarianism has been hedonistic, modern utilitarianism being simply universalistic hedonism.

I have spoken of two distinct questions, which Dr. Carus seems to confuse; there is a third which he fails to distinguish from the others, and in the treatment of which I am glad for his sake to-day that he falls into a happy inconsistency. This relates to the *motive for regulating our conduct* according to the standard which has been supposably discovered. It is one thing to know what is the true world-theory, another to know what is the standard of right, another to know the true motive for regarding that standard. The position which I have always taken (and I think all the other ethical lecturers have taken), is that when we once really know what right is, there is no other course for us but to obey it, simple reverence for the right being the only true, the only moral motive. We have to most carefully study what the right is, but once knowing it our only attitude is (i. e., should be) obedience. To ask *why* we should do the right is meaningless, it is to go out of the moral region altogether. Now when Dr. Carus proposes the question, "Why must I feel bound by any 'right' or moral law," when he says that if we demand of a man "that he refrain from doing wrong and be guided by what is right, we are bound to give him a reason why," he seems to join with those who are not satisfied with the moral motive, and after reading those remarks in the opening pages of his volume, I observed with particular closeness the subsequent course of his argument to see what "reason" or "why" he would give. Yet he had already casually spoken of the "motive to do right"; and what was my surprise and gratification to find him later on speaking distinctly of the "aspiration to live in perfect harmony with the moral law," (p. 37); of the "moral motives in the moral purity," (p. 61); and boldly saying that "an ethical teacher ought to appeal to the highest motives man is capable of," (p. 61.) In fact, Dr. Carus gives no "reason why" in the sense of a motive beyond the moral motive; and is well aware that so to do would be not to explain, but to degrade morality. Yet if so, what necessity was there for him to take such an attitude of antagonism to us? We too are trying, in the measure of our

ability, to plant (or better, to develop) the moral motive in the souls of men. Dr. Carus said, addressing the Chicago Ethical Society, "You may say it matters not why a man leads a moral life, so that his life be moral." This is a grotesque description of our position. The motive of right conduct is what makes it moral; if that has been said once, it has been said a hundred times on the Chicago platform.

To conclude then this, I fear, already too long article: It is true that the ethical movement has not committed itself to a particular world-theory; it leaves its members and lecturers free to adopt whatever theory most approves itself to their reason; instead of setting up a standard of philosophical orthodoxy as Dr. Carus seems to propose (though he fails at the critical moment), it believes that philosophical systems should have a free field and no favor and that *that* one should survive whose claims prove the strongest in the struggle for existence—and all within the fold of an ethical fellowship, held together by community of moral aim. Dr. Carus, I am sorry to see, has not outgrown the sectarian principle of the churches and would apparently give us another sect as "exclusive" and "intolerant" as any in the past, though (Gottlob!) it will slay with the sword of the spirit and not with the arm of flesh. Secondly, it is *not* true that the ethical lecturers have not furnished a "basis of ethics" in the sense of a standard of right and wrong; each of them has done so and estimated all particular duties by their relation thereto; and although on some points of speculative significance all may not be agreed, they are sufficiently so for practical sympathy and co-operation—certain great duties being recognized by all alike. Our highest aim is to make men autonomous in their moral conduct, as indeed Dr. Carus thinks we should, (p. 49.) apparently forgetting his earlier challenge that if we no longer believe in the supernatural God, we should give account of "that God" who gives us authority to preach (xii). What is more, any of us may believe in the "Supernatural God," if so it seems reasonable for him to do; the movement is by no means committed to Anti-Supernaturalism, as he seems to think, whatever were the motives of some of those active in the beginning, and it has quite another reason for being than that which Dr. Carus ascribes to it.* Thirdly, as to the much abused "basis" in still another possible meaning, namely, of a *motive* for the regulation of one's life, we have from the beginning recognized the same "basis" which Dr. Carus suggests, viz., the motive to do right, the aspiration to live in perfect harmony with the moral law.

* That reason is stated in the concluding chapter of my *Ethical Religion*; and still more simply and clearly and convincingly in the first two chapters of Dr. Stanton Coit's just published *Die Ethische Bewegung in der Religion*. (Leipzig: O. R. Reisland.)

MR. SALTER ON "THE ETHICAL PROBLEM."

MR. SALTER thinks that I have not properly understood the position of the leaders of the ethical movement. But Mr. Salter's reply is good evidence that I did not misunderstand them. He says: "It is *not* true that the ethical lecturers have not furnished a basis of ethics in the sense of a standard of right and wrong;" and yet he takes pains to explain that by this basis of ethics he understands certain ethical rules, and especially the supreme ethical rule, but not the reason of his ethical rules which finds expression in a philosophical or religious view back of ethics. The latter alone can properly be called a basis of ethics, and all the ethical teachers agree that that which *we* call the basis of ethics is not needed. They look upon it as of mere speculative significance.

Mr. Salter fails to see the indispensability of a philosophical or religious view back of ethics; he fails to see that it alone can give character to ethics, it alone can change the instinctive morality of our conscience into truly rational and self-conscious ethics.

Conscience and the moral law are not so absolute as Mr. Salter in his book declares them to be. Religion and ethics have developed; the facts of an erring conscience as well as of the religious superstitions prove that both have grown from experience. Both religion and ethics have developed together, for they are twins.

When saying, religion and ethics have grown from experience, it means that the stern facts of life have taught us what desires should be suppressed and what wishes should rule supreme. The facts of life themselves have taught us our attitude toward our surroundings; they have taught us the moral laws.

It appears to me that the "moral law" has a different meaning with Mr. Salter than with me. The moral law, whenever I use the word, is simply a formulation of the lessons taught us by experience. Moral laws are—like the laws of hygiene—statements of those conditions which will keep our sentiments and motives in perfect health.

Mr. Salter knows no 'reason why' for his moral law, and he imagines that to give a reason why "would be not to explain but to degrade morality."* In this way

* Mr. Salter writes in a marginal note on the proof of this article: "You must be aware that I use this language in another connection; viz., in speaking of the *motive* for right-doing."

I am accustomed to distinguish between motive and reason. (See *Fundamental Problems*, p. 50, lines 21-25.) Motive is the cause that effects an action. A cause in the domain of human action is called motive, for it is that which makes the will move. I distinguish between motive and reason, but I cannot think of a motive without a reason. A motive is a cause that consists of an idea, the idea acting as an irritant or stimulus upon a man, thus provoking him to action. The contents of this idea is called reason.

I maintain that the motive to do this or that must have a content. This content is its reason. The rule "do that which is right" (or the intention "I wish to do that which is right") is without practical value, unless I know what is right. In order to know what is right I must ascertain it, and I can do so

ethics is, in Mr. Salter's mind, inseparably intertwined with mysticism.

Our intention is indeed to explain morality, and here rises our conflict with the policy pursued by the ethical lecturers. We consider scientific enquiry into the reason why of ethics, not as a degradation, but as a duty. The ethical lecturers do not acknowledge the reason why, presented by orthodox theology. They are therefore bound to give a new reason why. If they refuse to do so, their whole movement is founded on sand.

It is an old experience which perhaps most of us who have sought for light and endeavored to understand their own ideals and aspirations have felt, that every enthusiasm, above all religious enthusiasm, regards science and all close scrutiny with suspicion. The relentless dissections of an exact analysis appear as a sacrilege.

The reader will feel in Mr. Salter's reply the uneasiness caused by our procedure. He invites us to present our opinion,* but he resents a clear statement of our differences.† This statement of our differences may have been emphatic, but I feel confident that it was not made so as to be offensive, for I have at the same time not concealed my respect—yea, my admiration for the efforts, the seriousness and the noble ideals of the ethical societies.

Mr. Salter is embarrassed by our criticism, because he neither feels the need of a basis of ethics, nor does he feel urged to have a scientific explanation of it. Ethics regarded as unexplainable, appears to him greater, nobler, and holier than if it were explained. Yet we can assure Mr. Salter that morality will not be degraded by any explanation. On the contrary, it will rise in its purest and holiest dignity.

only by enquiring after the reason why it is right. Thus the 'reason why' is inevitable whatever standpoint we take.

* Mr. Hegeler in a letter of May 8th, 1890, wrote: "In the last number of *The Open Court* that reached me, I find Dr. Carus has defined our position towards Ingessoll and his followers and also that towards the Societies for Ethical Culture. I believe the article was written by him already some time ago, and the publication was delayed by our hesitancy to open what I will call civilized war upon you. I have told the Doctor already,—a long while ago,—that it was our duty to do this."

So, also, in a letter of June 14th, Mr. Hegeler wrote: "We ought to clear our differences of opinion for the general good. You are an influential public teacher, and I certainly spend a large amount of money for the same object—and avoidance of waste and also the reduction of mental as well as physical struggle or war to the smallest possible limit (but not the avoidance of the struggle) belongs in my opinion to the essence of Ethics. The energy thereby saved we have to use for a building up."

† To this Mr. Salter replied, on June 18th: "I agree with you entirely that we should endeavor to clear up our differences. . . . Nothing but preoccupation and lack of time have prevented me heretofore from explaining myself at length to you. Indeed, I hoped that when my book came out, giving my views at such length, I should have the benefit of criticism from you and Dr. Carus. I, by no means, count my present views as final, as indeed I say in my preface. And I wish to learn and assimilate all of positive truth, which you give in *The Open Court*—and I have already gained help from it. So please criticise me in public or in correspondence—and, at least in the summer, I will agree to answer to the best of my ability, and I will always attentively read and consider."—(Published with Mr. Salter's permission.)

† Mr. Salter says in a marginal note: "I did not invite you to criticize the movement in your public lectures; still you had a perfect right to do so, and I am not sorry."

Mr. Salter considers the demands of the conscience as an ultimate fact; it is to him "the unmovable rock" upon which he bases the ethical movement. He asserts the independence of morality from religion as well as science; he attempts to make morality absolute. If a gardener, in this way, makes the tree independent of its roots, he becomes a wood-cutter; he will deprive the tree of the conditions of its life.

If Mr. Salter would ask himself how he had come into the possession of the ethical stimulus, he would soon be urged to travel the same path with us.

The ethics of mysticism is only the prophesy of ethics based on science. It is the bud's promise of a fruit. It is like astrology which will mature into astronomy. The astrologer has set his heart on the mystic element of his profession; it alone possesses in his mind the charm of beauty, and he watches with great grief how the bud loses that beauty while it ripens into a fruit.

I have read Mr. Salter's article with great care, and have compared his objections with the statements made in his book "Ethical Religion." In the hope of coming to a mutual understanding, I shall not rest satisfied with this summary reply, but I shall go over the whole ground again. The importance of the question under discussion and the prominence of Mr. Salter in the ethical aspirations of the present time require a most careful treatment of the subject. P. C.

COMPARATIVE PHYSIOLOGY OF THE BRAIN.

THE question has often been discussed which part of the brain contains the physiological conditions which distinguish man from his lower fellow-beings. The idea that these conditions reside in the forehead is a most popular belief; yet the great physiologist Meynert concludes, that, all abstract reasoning being impossible without language, the reasoning capacities of man must have their central seat in the region of speech which is situated round the *fossa Sylvii*, consisting mainly of the insula, the operculum, and the first frontal convolution.

The frontal lobe, accordingly, contains some functions which are not at all the exclusive prerogative of man. It is true that the human head alone is distinguished by a strongly marked frontal development. Yet there are several reasons which make man's forehead rise so proudly. Among them the development of the frontal convolutions is one, but by no means the most prominent reason. The frontal lobe of man is 42, of a monkey 35, of a bear 30, of a dog 32 per cent. of the whole brain. The rise of the human forehead is chiefly conditioned by the strong development of the insula and the whole region around the fissure of Sylvius as well as of the lenticular body, upon which the insula rests. The growth of these

parts raises the cortex which covers them and thus makes the forehead rise. In addition to these facts we notice that the temporal lobe, like a thick wedge, is pushed forward so as to lift the whole brain still higher.

The region of the fissure of Sylvius appears very low in a sheep, and the temporal lobe (In the diagram of a sheep's brain *S. par.*) lies behind it in a longitudinal direction. Let us imagine that we could turn the hindpart of the *Sulcus parallelus* in the brain of a

sheep downward and forward so as to approach the olfactory bulb. By this process we should change the brain of a sheep so as to resemble the brain of a dog or a fox. In the brain of a monkey the end of the temporal lobe (*Tr.*) is turned forward, so as to be directly behind the fissure of Sylvius. In man it protrudes so much that it lies below and a little in front of the fissure of Sylvius.

The brains of carnivorous mammals, (for instance, the brain of a fox,) show a very regular arrangement. The fissure of Sylvius (*R. p.*) is surrounded by four horse-shoe-shaped convolutions. In man their arrangement is much modified but still traceable. The first horseshoe alone is fully preserved in its lower, temporal course, (*S. t.*); it still reaches (in arc I) round the fissure of Sylvius, but the greatest part of its upper or parietal portion has disappeared. The second arch (arc II) corresponds to the *Sulcus interparietalis* (*S. i.*) and *Sulcus occipitalis exterior* (*S. occ. e.*). Its horseshoe form is still well preserved in the monkey's brain, while it is scarcely recognizable in man. The frontal part of the next arch, situated between

the second and fourth horseshoe-shaped furrow, corresponds to the posterior central convolution in the monkey and in man, (limited in front by the Central Fissure *C.*). Man possesses here another well discernible central convolution (called the anterior central convolution *C. a.*). There is scarcely any frontal lobe in the fox's brain, except the convolution which surrounds the anterior branch of the fissure of Sylvius (*R. a.*). It is crossed in its upper part by a horizontal fissure (*cm.*). These changes in the arrangement alter the direction of the fissure of Sylvius, which is almost vertical in the sheep. In carnivorous mammals and in the monkey it forms with the base of the brain an angle of about 45 degrees, while in man it is almost parallel to the base of the brain.

This comparison shows that man's brain is distinguished by a special development of the frontal; the monkey's brain by a special development of the occipital; and the fox's by a development of the parietal lobes.

"Had these proportions no meaning," says Meynert, "comparative anatomy would be a loss of time and serious men should leave it alone."

One of the most important modifications in the arrangement of the different parts remains still to be noted. This is the change from the horizontal arrangement where (as in the sheep) the cerebellum and Medulla Oblongata lie in one line with the elongated brain, to the erect position which brings the medulla directly underneath the hemispheres and places the cerebellum below the occipital lobe. This mechanical change of so momentous consequences, must evolu-



BRAIN OF AN ELEPHANT. (After Leuret and Gratiolet.)

S.S. Fissure of Sylvius.

S.S.S. S'-S'. First, second, and third superior convolutions.

I.A. II.A. III.A. First, second, and third anterior convolutions.

I.P. II.P. III.P. First, second, and third posterior convolutions.

O.O. Subcortical convolutions.

The first superior convolution (S.S.) corresponds to the Fissure of Rolando in the brain of man and monkey.

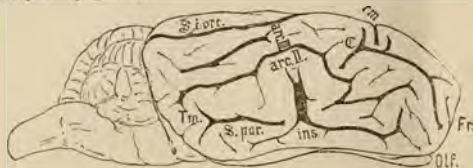
The second and third superior convolutions interrupt the continuity between the corresponding anterior and posterior convolutions.

M. Leuret says on the subject: "If we suppress in our mind the superior convolutions up to the place where the cross appears in the diagram, and if we imagine that the anterior convolutions are continuous with the posterior convolutions, we have an arrangement as it appears in the ruminants and solipeds."

The same author says: "No animal, not even the whale has a brain so large as the elephant. Even man himself is inferior to this animal, not only with regard to the whole volume of brain, but also with regard to the number, extent, and undulations of the cerebral convolutions."

The brains of carnivorous mammals, (for instance, the brain of a fox,) show a very regular arrangement. The fissure of Sylvius (*R. p.*) is surrounded by four horse-shoe-shaped convolutions. In man their arrangement is much modified but still traceable. The first horseshoe alone is fully preserved in its lower, temporal course, (*S. t.*); it still reaches (in arc I) round the fissure of Sylvius, but the greatest part of its upper or parietal portion has disappeared. The second arch (arc II) corresponds to the *Sulcus interparietalis* (*S. i.*) and *Sulcus occipitalis exterior* (*S. occ. e.*). Its horseshoe form is still well preserved in the monkey's brain, while it is scarcely recognizable in man. The frontal part of the next arch, situated between

tionally have begun long before it could have been acquired by exercise, since the incurvation of the pons in the human embryo which thrusts both pons and cerebellum forward, thus producing the conditions that determine the further development of the brain in a supra- and not in a juxta-position, takes place at a very early period.



BRAIN OF A SHEEP.

ins. Insula. Above the insula is found the posterior branch of the fissure of Sylvius.

S. i. occ. Sulcus interoccipitalis.

S. par. Sulcus Parallels.

Fr. Forehead. Tm. Temporal lobe.

Olf., arc. II, arc. III; C; cm; have the same signification as the following diagram, "Brain of a Fox."



BRAIN OF A FOX.

Olf. Olfactory bulb.—arc. I, Arcus parietalis primus.—arc. II, Arcus parietalis secundus.—arc. III, Arcus occipitalis.—C. Sulcus Rolando.—cm, Sulcus Calloso-marginalis.—A. Gyrus uncinatus (hooked convolution).—R.A. Ramus posterior fissurae Sylvii.

BRAIN OF MONKEY. (*Cercopithecus aethiops*).

Fr. Forehead.

Occ. Occiput.

Tm. Temporal lobe.

S. cr. Sulcus cruciatus.

S. i. fr. (In the frontal lobe) first frontal fissure.

S. i. s. Incipient second frontal fissure.

The same letters are used in the temporal lobe for the first and second temporal fissure.

A. C. Sulcus praecentralis, appearing in connection with the incipient second sulcus frontalis.

C. Sulcus centralis.

F. S. Fissura Sylvii.

R. A. Ramus ascendens of Fissura Sylvii.

arc. I. Anterior parietal arc.

arc. II. Posterior parietal arc.

lob. occ. Lobus occipitalis.

r. C. Sulcus interparietalis.

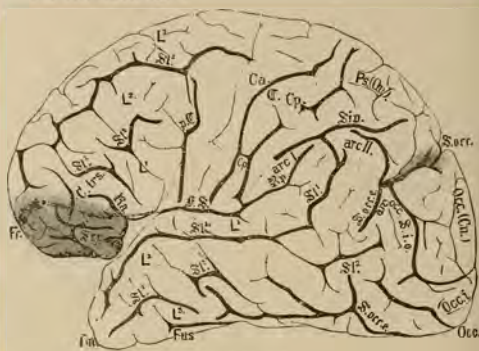
S. occ. A. Sulcus occipitalis exterior.

S. p. Sulcus praecentralis.

L. 1, L. 2, L. 3. First, second, and third temporal convolutions.

Ob. Cerebellum.

Ob. Medulla oblongata.



BRAIN OF MAN.

Fr. Tm. Occ.—S. cr. Sulcus F. S., R. A.—S. i. fr., S. i. s., S. i. v. in frontal lobe and S. i. fr., S. i. s., in parietal lobe.—L. 1, L. 2, L. 3, in parietal lobe.—r. C; C; arc. I, arc. II; S. occ., the same as in the preceding diagram, "Brain of Monkey."

C. tr. Gyrus transitorius, Transitory convolution surrounding R. A. Ramus anterior, the anterior branch of Fissura Sylvii.

C. A. Anterior and posterior Central convolution, separated by G.

S. i. p. (In the preceding diagram r. C.) Sulcus interparietalis.

Pr. (Qu.) Lobus parietalis superior, commonly called Quadratus.

S. occ. Sulcus occipitalis interior.

Occ. (Cu.) Gyrus occipitalis superior, commonly called Cuneus.

Occ. i. Gyrus occipitalis interior.

S. i. v. Sulcus interoccipitalis.

arc. occ. Arcus occipitalis.

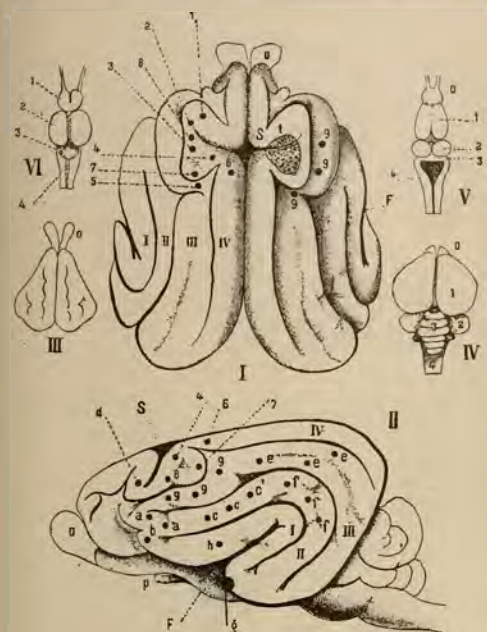
The importance of this change will be appreciated when we consider that the rise of the head causes a creature to rely more on its eyes and less on its nose. The animal of scent becomes an animal of vision, ultimately liberating its anterior extremities for work. The jaws recede and the different parts of the brain are piled upon one another so as to shape the hemispheres into a dome-like cupola. The senses also cease to be arranged one behind the other. Eye, ear, and nose form a triangle, the eye being situated at the top.

The nose being removed from the ground naturally turns downward toward the earth which for the animal of scent has been the main source of information; for there is nothing to be scented in the air.

The conclusion of Meynert, whose authority we have closely followed in this article, is that the human organisation can be explained neither through exercise of functions alone nor through natural selection, but, according to Weismann's theory, through the development of special virtual faculties of the germ.

There is a startling agreement between Professor Weismann's biological views and Ludwig Noiré's theory concerning the origin of reason. Noiré says that language, i. e., the mechanism of thought has produced reason; man thinks because he speaks. And according to Weismann's theory, Meynert says that

man became a sight-animal because the mechanism of his brain arrangement forced him into an erect walk, thus developing the higher senses of his organization.



DIAGRAMS SHOWING THE GROWTH OF THE HEMISPHERIC REGION IN PROPORTION TO AN INCREASE OF INTELLIGENCE. (Reproduced from Landolt.)

- I. Brain of a dog dorsal view.
 II. The same lateral view.
 III. Brain of a rabbit.
 IV. Brain of a pigeon.
 V. Brain of a frog.
 VI. Brain of a carp.

The diagrams I and II show the motor centres of the dog's brain.
 I, II, III, IV, are the four horseshoe-convolutions.
 S. Sulcus cruciatus.
 F. Fossa Sylvii.
 A. Optic nerve.

MOTORY CENTRES. (After Fritsch and Hitzig.)

1. Muscles of the neck.
2. Extensors and flexors of forepaw.
3. Flexors and rotators of forepaw.
4. Muscles of hind leg. (Luciani and Tamburini.)
5. Facial nerve.
6. Wagging the tail side ways.
7. Retraction and abduction of foreleg. (Ferrier.)
8. Retraction of the shoulder and extension of foreleg. (The motion of walking.) (Ferrier.)
9. Orbicular muscle of the eyebrows. (Ferrier.)

ZYGOMATICUS AND CLOSING THE LIPS.

- a. Retraction and elevation of the corners of the mouth.
- b. Centre for the mouth and tongue. It opens and closes the mouth, extending at the same time the tongue.
- c. Retraction of the corners of the mouth.
- c'. Lifting of the corners of the mouth.
- d. Opening of the eye.
- e. Opening of the eye and turning the head aside.

f. Centres of hearing.* (Ferrier.)

g. Centres of smell.* (Ferrier.)

i. Thermal Centre (in rat after Landolt and Eulenburg) shows increase of temperature.

Landolt says: "The degree of intelligence in the animal kingdom is according to the size of the hemispheres of the Cerebrum in proportion to the mass of the other parts of the central nervous system. If we take only into consideration the brain, it shows that those animals possess the higher degree of intelligence, in which the hemispheres of the cerebrum have the greater preponderance over the mid-brain. The latter represents with the lower vertebrates the optic lobes, with the higher the four hills. (Joh. Möller)."

"In the above diagram, figure VI represents the brain of the carp, figure V that of the frog, and figure IV that of the pigeon. In all these figures the hemispheres are numbered 1, the optic lobes 2, the cerebellum 3, and the medulla oblongata 4."

"In the carp the cerebral hemispheres are smaller than the thalami, with the frog the latter are superior in size. With the pigeon the cerebrum extends behind as far as the cerebellum.—Analogous to these proportions is the degree of intelligence of the above named animals. In the brain of the dog (fig. II) the hemispheres cover the four hills, but the cerebellum lies behind the cerebrum. In man the occipital lobe of the cerebrum overlaps the cerebellum."

"Meynert happily represented these proportions in another manner. From the cerebral hemispheres fibres, as is known, pass downwards through the Pedunculus cerebri, and indeed through the ventral part of the Pedunculus, called the Pes. This is separated by the Substantia nigra from the dorsal part of the same, called tegmentum, which stands in connection with the four hills and the thalami. The greater the cerebral hemispheres, the more numerous are the fibres running through the pes."

"The tegmentum in the guinea pig is about ten times larger than the pes, that of the dog and the monkey, five or six times. In man the pes is about the same size as the tegmentum, which proves that the reflexes coming down from the cerebrum are that much more numerous."

"Finally the degree of intelligence depends on the number of convolutions in the hemispheres. While with the lower animals, as the fish, the frog, the bird, the convolutions are wanting (Fig. IV, V, VI), we see in the rabbit two shallow convolutions in each hemisphere (Fig. III.). The dog shows a richly marked cerebrum. Remarkable is the wealth of convolution in the elephant, the cleverest and noblest of animals. Even in the invertebrata, as in some insects with high instincts, have been observed convolutions in the cerebrum. Yet it must not be forgotten that even many stupid animals, as cattle, possess richly convoluted hemispheres." (Cattle, we may add, most likely were in the wild state in possession of a higher intelligence. This perhaps accounts for their having inherited their convolutions.)

"This observation concerning convolutions holds good also of men of high intelligence, but brains rich in convolutions are also found in stupid persons."

"The absolute weight of the brain cannot be used for the estimation of the degree of intelligence. The elephant has the *absolutely* heaviest, man has the *relatively* heaviest brain."

CURRENT TOPICS.

AMONG the profitable monopolies enjoyed by old age is the exclusive privilege of showing how different it is now to what it was then, and the right of ending controversy by facts and incidents "within my own recollection, Sir." I try as well as I can to keep my nature free from "envy, hatred, malice, and all uncharitableness," but sometimes the weeds of envy will infest the garden of my soul in spite of all the moral and mental cultivating of it that I can do. Notwithstanding all my efforts to subdue this vice, I envy the old age of Shem, Ham, and Japheth, when I consider the ponderous dignity and importance of those venerable patriarchs, while they were expounding to the new settlers how it was "before the flood," when Methusalem kept the tavern where the Board of Trade is now, and when Tubal Cain run the blacksmith shop over yonder where the Temple of Baal stands. In like manner do our modern patriarchs take advantage of a parallel comparison in the phrase "before the war." You may often see a taciturn old man sitting morose and silent in the midst of a genial company until his own particular hobby is trotted into the conversation. Then he mounts it, and immediately becomes inspired with loquacity. Quicker than Harlequin, he turns himself into a reminiscence fiend, and soon teaches the company to respect the

* The centre for smell and hearing are situated in other regions according to Munk.

superiority of a man who "was there at the time," and consequently knows it all. Well, that's the way with me. Sometimes, a trivial circumstance mentioned in the papers will whirl me backwards into the antediluvian epoch, when I lived in Old Virginia, where people had some value; where men, women, and children would bring in the open market from ten to fifteen dollars a pound. Once I saw a woman sell for twenty dollars a pound, but she was very beautiful, and wonderfully white,—for a slave.

Old slavery memories came down upon me in a gale the other day, when reading in the newspapers that George Delaney had been tried at Newport, Kentucky, for stealing shirt studs and clothing from Winston Turner, a negro seventy-four years old. It was developed at the trial that Mr. Turner had once been the slave of Henry Clay, of whom he entertains a most affectionate remembrance. Mr. Turner's veneration for his old master shows how the human soul can dwindle and dry up in slavery, and how basely we respect those who claim to be "our betters," if they prove their claim by force. "Ole Marse Henry, he was mighty kind to us niggahs," said the grateful Mr. Turner; "he never had us boss-whipped nor nothin' o' that kind." Being asked if he was present at Henry Clay's death, he answered, "No, Marse Clay be done got broke before he died, and he tuk and sold me, but maybe I didn't think lots of Marse Henry." Mr. Turner's answer shows the corrupting influence of slavery on the spirit of its victims. Here was a man who spoke with reverence and honor of another man who had actually sold him for money; and so benumbed were his moral sensibilities by the bondage of his youth, that he could even find absolution for the seller in the excuse that "he done got broke," and therefore was compelled to raise a little money by the sale of Mr. Winston Turner.

The contrast between slavery and freedom has been made visible to me in a hundred different ways; by books, by speeches, and by sermons; but I have not seen any pictorial illustration of it so graphic and intelligible as the trial of a man in Kentucky for stealing shirt studs from a negro, who was formerly a slave. In the days of slavery such a trial would have been impossible, because a slave could not own anything then; he and his were the property of his master; and supposing that he could have enjoyed the right of property, shirt studs would have been a superfluity belonging to the regions of enchantment, a vanity beyond the reach of his most hopeful and happy imagination. I assume that the shirt studs were of gold, otherwise they would hardly have been worth stealing. I remember very well the condition of the negroes of Kentucky in the days "before the flood"; they had bright hopes of treading golden pavements in the celestial city, but the possibility of some day wearing golden shirt studs in the streets of Newport was too deep in the heart of miracle for their uneducated minds to see. I know that emancipation did not provide golden shirt studs for the negro, but it gave to him the chance and right of wearing them, and these are the signs of his redemption.

The contrast presented by that Kentucky trial sent me roaming over the imperial domain of retrospection, the Elysian fields of Old Age, wherein I love to wander at the gloaming of my life, and where I can find reminiscences on every bush and tree. Here is one I plucked the other day, in the shape of an ancient newspaper called the "Augusta Sentinel," published in the state of Georgia, May 2, 1865, a few months after Sherman had marched through. I take an interest in this reminiscence because it reminds me that Slavery was the last of the Confederate forces to surrender. That paper was issued when Jefferson Davis was a fugitive, and when the armies of Lee and Johnston had already

been dissolved into citizens. It contained the following advertisement:

"T. Savage Hayward, auctioneer, proposes to sell at the Lower Market, on May 3, the colored man Peter, a finished waiter, and the negro woman Laura, a good field hand."

"Savage" was not meant for a sarcastic epithet; it was that portion of his Christian name which Mr. Hayward himself was anxious to make prominent, but there was an ironical fitness in it not intended by his parents when they named him; for it is not likely they foresaw the destiny of their son, or dreamed that fortune had selected him for auctioneer of men and women at the Lower Market. Mr. Savage Hayward was a prudent man, he only "proposed" to sell, and was by no means positive that he would sell, for the colors of the National flag were already reflected in the sky of Georgia, and perhaps the flag itself might unconstitutionally invade the town on the morrow, and unconstitutionally enfold Peter the finished waiter, and Laura the good field hand, as it unconstitutionally did. On the very morning of that 3d of May, an unwelcome guest rode into the town of Augusta, at the head of a troop of horsemen carrying in front of them the redeemed and regenerated banner of the Union, whereupon the sale of Peter the finished waiter, and Laura the good field hand was indefinitely postponed.

When deeds of piety can be done by proxy, the most exemplary and religious people will be the rich and great. I have heard of praying by machinery, but as that was a heathen practice it makes no precedent for us, although in due time it may become fashionable in Christendom. So many ethical and theological novelties have been introduced of late, that it is difficult to draw the line between those duties that must be done in person, and those which may be done by deputy. We have seen devoted patriots in our own day, fight for their country and even die for it by substitute; and why may not the dummy principle be extended so as to embrace within it all moral obligations and religious liabilities? I know a member of congress who boasts of a good battle record which he made in the army, by substitute. He claims credit for personal prowess in six battles, by force of the law maxim that what a man does by his agent, he does by himself; therefore he, and not his proxy did the fighting and ought to have the glory. If a man may fight the battles of his country by substitute, why may he not also work, or pray, or go to a funeral, or take the sacrament, or perform any other duty by attorney?

In Europe vicarious piety appears to be the privilege and monopoly of royalty, for I notice in a recent number of an English paper that Queen Victoria, and most of the royal family attended the funeral of a friend without any of them taking the trouble to go where the funeral was; in fact they might have been at the races or the theatre, or any where else while the obsequies were going on. The Court Circular thus announces the event: "At the funeral of the late Sir William Hoffmeister, M.D., General The Right Hon. Sir Henry Ponsonby attended on behalf of the Queen." I suppose it would be a breach of etiquette should a person say that Sir Henry Ponsonby was present at the funeral. He was just vicariously there as an effigy, grieving "on behalf of the Queen," and shedding dummy tears for her. The mourning of the Prince and Princess of Wales was done by a lord, that of the Duke and Duchess of Edinburgh by a Major General, and that of the Duke and Duchess of Connaught by a Colonel, an extravagant indulgence in sorrow which was quietly rebuked by the other members of the royal family, Princess Christian, Princess Louise, and Prince and Princess Henry of Battenburg. These economically pooled their grief as it were, and sent it by one delegate, Colonel The Hon. Henry Byng, and he did not find it so very heavy but that he was able to take a wreath along with him "on behalf

of the Duchess of Albany." The tears of the royal family were figuratively supposed to be wept beforehand into the white handkerchiefs displayed at the funeral by Lord Colville of Culross, Major General Cowell, Major General Ponsonby, Colonel Beecher, and Colonel Byng, the five substitutes who did all the grieving "on behalf of the Queen" and the rest of the royal family.

In the same paragraph of the Court Circular and immediately following that description of the funeral, appears this important piece of information, "Her Majesty and the royal family, and the members of the royal household attended divine service at Osborne, on Sunday morning, the 3d." This appears to me to be a waste of worship, and I wonder why this act of piety could not be done as well as the other, by a lord in waiting, two Major Generals and two Colonels. It is coming to that, and some day we shall read in the Court Circular, that on Sunday last Lord Colville of Culross attended divine service, offered a prayer, sung a hymn and partook of the communion "on behalf of the Queen."

M. M. TRUMBULL.

BOOK REVIEWS.

A PRIMER OF DARWINISM AND ORGANIC EVOLUTION. By J. J. Bergen, Jr., and Fanny D. Bergen. Boston: Lee & Shepard, Publishers. New York: Charles S. Dillingham.

This primer is, as explained in the preface, a second edition of "The Development Theory" by the same authors, the title having been changed in the belief that the incorporation of the term Darwinism in the name of the book would indicate the nature of its subject-matter. Its usefulness is shown by a second edition being called for. One point in which the authors err, is in placing too much reliance on the extreme views held by certain writers as to the mental and moral condition of the lowest races of men. Popular as Sir John Lubbock's "Origin of Civilization" is, its conclusions are not always reliable and must be received *cum grano salis*. They have led our authors into serious errors as to the social and moral condition of the lower races. The statements at pp. 191-2 beginning with the words "among the lowest and most animalistic races," and ending with "and rise to an uncontested chieftainship," appear, indeed, to us to be so little justified by the actual facts that they ought to be omitted, unless they are qualified by showing what races are particularly referred to.

ARYAN SUN-MYTHS THE ORIGIN OF RELIGIONS. By Sarah E. Titcomb. With an introduction by Charles Morris. Published by the author. Sold by Estes & Lauriat, Boston.

The authoress of this small book, which in less than two hundred pages deals with a subject that to be exhaustively treated would require much fuller consideration, very properly lays no claim to originality, except in the arrangement of the work. Her aim has been simply to condense the statements of other writers. This she has done very successfully, and as a synopsis of facts the work is valuable. Its ultimate object is shown by the title, which however is not strictly accurate. The book is concerned with the origin, not of all religions, but of the religions of the Indo-Germanic peoples, all of whom are said to have worshipped crucified Saviours, who were personifications of their chief god, the Sun. The inference is that Jesus Christ is merely a personification of such a solar deity. To establish this as a fact it would be necessary first to prove that no such person as the Jesus of the Gospels lived and was crucified. The proof supplied by the authoress in support of this contention, although it shows a connection of developed Christian belief with the ideas of earlier religions, has all the weakness of circumstantial evidence. The subject is, however, one of great importance and deserves closer attention than it has yet received. We sympathize with Mr. Morris's statement that "Christianity properly considered is not a system of belief,

but a system of ethics," and this fact renders such books as the present of not much practical value, although they are useful to those who wish to study the origins of theology.

SONGS AND SONNETS OF SPRINGTIME. A MODERN APOSTLE; AND OTHER POEMS. By Constance C. W. Naden. London: Kegan Paul & Co.

The first of these volumes of poetry from the pen of one who, although chiefly known as a scientific student, is ranked by one so competent to judge as Mr. Gladstone among the eight English poetesses of the nineteenth century, was published nine years ago. The second volume was published in 1887, about three years before the death of the gifted authoress. None of the earlier poems are of any great length but a glance at the tables of contents of the two volumes shows a continuity of thought running throughout. It is evident that from the very first Miss Naden's mind was engaged with the deep problems of life. In her first poem "The Astronomer" we read:

"Now has the breath of God my being thrilled;
Within, around, His word I hear:
For all the universe my heart is filled
With love that casts out fear,
In one deep gaze to concentrate the whole
Of that which was, is now, shall be,
To feel it like the thought of mine own soul.
Such power is given to me."

Most of the poems have a distinctly religious tone, and show clearly the mental condition of the writer, whose final thought is probably expressed in "The Pantheist's Song of Immortality," which yet was one of her earliest poems:

"Yes, thou shalt die: but these almighty forces,
That meet to form thee: live for evermore:
They hold the suns in their eternal courses,
And shape the thy sand-grains on the shore.
Be calmly glad, thine own true kindred seeing
In fire and storm, in flowers with dew impregnated
Rejoice in thine imperishable being,
One with the Essence of the boundless world."

We have the ethical teaching of Miss Naden's philosophy in the following passage from "The Elixir of Life" which has a very Buddhist tone:

"There is one way of peace, but one—to live
The Universal Life; to make the whole
Of Nature mine; to feel the laws which give
Form to her Being, sovereign in my soul:
By this one road, enfranchisement I gain
From the heart-stifling narrowness of pain."

In her lighter moods she composed "Evolutional Erotics" and some of these verses are very amusing. "The Lament of the Cork-Cell" was her earliest effort of this kind, and her latest was "Solomon Redivivus, 1886." Here we have Darwinism portrayed from its beginning, when the modern Sage remarks to his companion:

"We were a soft Amorba
In ages past and gone,
Ere you were Queen of Sheba,
And I King Solomon."

The death at an early age of a lady who combined with her accomplishments as a poet so profound a scientific knowledge as Miss Naden displayed, besides a love for all that is good and true, was a great loss to the world, but is only another illustration of the truth that the fruit which ripens the quickest is the soonest to fall.

NOTES.

The reduction in size of *The Open Court*, announced in a former number, will take place week after next. The new Quarterly, *The Monist*, appears this week. *The Monist* will be sent to all subscribers to *The Open Court* who have prepaid their subscriptions beyond Oct. 1st, until the date of the expiration of such subscriptions.

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A DRAMATIC POEM BY IBSEN.*

BY EDNAH D. CHENEY.

THE social dramas of Henrik Ibsen have aroused much attention even in this country, and brought out an amount of earnest thought which has produced important social changes in his own land, but his long and very remarkable dramatic poem *Brandt*, has not yet been translated into English, and is therefore much less known than it deserves to be.

The German translation appears to be vigorous and free, and reads like an original poem, and through this the work is accessible to many American readers. It would require a master hand to make a translation into English which would as vividly render the varied and striking character of the versification, which seems to give the life and movement of the waterfall, the glacier, and all the wild scenery among which the action goes on.

These grand natural phenomena, and the tremendous forces of Nature which are frequently called into play, make an appropriate setting for the stern and sombre action of the drama, which deals with the most tremendous questions of spiritual life.

Many Germans say that this is the greatest poem produced since Goethe's *Faust*, and the comparison between these two master-pieces is suggested both by their resemblances and their differences. There is the same blending or rather contrast of the sweetest human feeling with the wildest fancies, but there is not the wide range over the whole domain of thought and speculation that we find in the German poem. *Faust* represents the tragedy of Doubt, the agony of a soul severed from its connection with the central life by its persistent questioning and its refusal to yield up itself to a Universal Will. Yet a reconciliation is found for this collision, and through the experiences of life; Love, Sin, and Sorrow, the soul is saved and restored to health, and the world advanced.

Ibsen has given us another and an opposite thought, the Tragedy of Belief, the suicide of Religion, the destruction of life by wilful acceptance of self-sacrifice and abnegation. Is this the great tragedy which has been played on a large stage? Is it the tragedy of our or of any age? Where in his social studies has

he found the prototype of his ideal priest who is most unlike those he has painted in his dramas? Let us follow out the story and see if we have rightly read his meaning.

The scene opens on a Norwegian plateau high up among the ice fields, which Brandt is about to cross in pursuance of his mission. A peasant and his young son are earnestly trying to dissuade him from attempting to pursue his way through the mists and over the glaciers, where his life is endangered by slides and pit falls at every step. Brandt persists in his determination to follow his route.

PEASANT. "The ground is hollow, you risk your neck.

Stay nian, 'tis life or death."

BRANDT. "I must, a greater one commands."

PEASANT. "How is he named?"

BRANDT. "Tis God himself,

As a weak instrument He chooses me."

Brandt even proposes to cross the water. To the peasant's remonstrance, he answers, giving the key to the ruling influence of his life,

"One has already done the deed.

He who believes, can safely tread the way."

Brandt argues with the peasant and asks him if he would not give all his goods to secure peace to a dying daughter. "All but his life," the peasant professes to be willing to give up? but if he dies

"Who then wins bread for wife and child?"

Here as elsewhere Ibsen indicates the constant pressure of the hunger question so keenly felt in those poor communities. When the priest replies:

"Here our ways divide.

You know not God, he knows not thee."

The simple peasant with his gospel of work and love says:

"Ah, thou art hard."

The boy would leave the obstinate traveller to his destruction, but the father seeks to compel him into the way of safety. He represents the social duty and says his neighbors would accuse him, if he allowed Brandt to go on to his destruction. The priest despises this man's want of faith and says:

"All help is useless for a man,

Who will not himself will what he cannot do."

Brandt sinks into a reverie which is broken by the sound of pleasant voices; the storm passes, a clear sunshine breaks forth, and out of the distance come Einar and Agnes, a loving pair, dancing and singing

* Brandt. Ein dramatisches Gedicht von Henrik Ibsen, übersetzt von L. Fassarge, Leipzig.

THE OPEN COURT.

for joy of existence. They describe to Brandt the joy of their hearts, and at last Einar recognizes in him an old schoolfellow and recalls his peculiar solitary ways.

The lively young artist takes Brandt for a travelling Sectarist, but Brandt replies :

"Oh! no, I am no Pietist,
I do not speak here as a preacher,
I hardly know whether I am a Christian,
But I look clearly in the face,
The sickness that is eating up our lives,
And is wasting the substance of our Land."

The artist laughingly replies that he is not at all aware that the Land is suffering from too much pleasure in life.

During this dialogue Brandt says that he is going "to bury God," and he paints the God that is worshipped in the World and in contrast his own stern ideal of Infinite Power.

At parting he says to Einar :

"Divide light from vapor on thy way,
Life, friend is an art."

EINAR. "Do you make the world anew,

I remain to my God true."

BRANDT. "Paint him with his crutches then,
I am going to lay him in his grave."

As Brandt leaves, Agnes remains a moment lost in thought, then suddenly rouses and asks,

"Has the Sun gone down?"

Einar tells her it is a cloud, but she complains of cold and perceives a storm coming. Einar tells her it was all right till that fool came in, and urges her to go on as before, but she is weary, she does not listen to Einar, and at last she says:

"How great he grew as he spoke."

In the next scene Brandt pauses on a rock and looks over his native town, and recalling his youth, his soul revolts at what he thinks to be the purposeless, godless life of the people, whose prayers are no deeper than their plays.

The half crazy maiden Gerd appears and throws a stone. She invites him to go with her to her church in the mountains up among the snows. This recalls to him a legend of his childhood, but he begs her not to go up, pointing out the danger of an icefall which a shot or even a cry may bring down.

She tells him how grandly the wind and the waterfall preach up there, but he treats it all as madness and calls her a type of the Church goer. He sums up "Frivolity, Stupidity, and Madness," as the evils against which he is to fight, and arms himself for the battle against the Demonic three whose destruction will bring Peace to Earth.

The second Act opens with a scene revealing the poverty and suffering of the people to whom the Steward of the town is distributing alms. Brandt comes in and observes the work. The supply is scant

and the Steward says :

"Five small fish do not feed a crowd to-day."

and Brandt answers :

"And if you divided ten thousand,
They would still go hungry from the Feast."

He then tries to show them their need of God, but they cry that he mocks at their suffering, and that he is raising the storm that is coming over the Lake.

While they threaten him a frantic woman appears and calls for a priest. Her husband, maddened with hunger, has killed his child and tried to kill himself. The Steward says, "there is no priest here," but Brandt steps forward and offers to go. He asks for a boat to cross the Lake. All the boatmen refuse to brave the storm.

Brandt says :

"Does not your God help you here?
Then know, mine is on board."

He cannot manage the boat alone, but even the frantic woman will not venture, although he says :

"The sinner's soul cannot wait until the storm clears up."

Then Agnes begs Einar to accompany him, but Einar refuses to go, saying that his life is too precious to risk since he loves her. Agnes sees the crisis of her fate, that she is parted from Einar. She turns to Brandt and says, "I go with you." As Einar entreats her to think of her own life, of her mother, she replies :

"There are three on board."

As the people watch the passage over the Lake, one man says :

"He is
A whole man and a Christian,
He has courage in deed and words,"

and soon the whole exclaim :

"That would be just the Pastor for us."

As the work is done and the storm has subsided, Brandt stands before the hut and Agnes on the shore. Some of the people then come and bring bread to the children, but Brandt reproaches them that they would not risk their lives to meet the spiritual need and that it is "All or nothing."

The people then tell him that they have come to beg him to be their pastor, but he refuses, saying it would oblige him to leave his work which is dear as life to him. He will do anything else for them, but the man returns to him his own words :

"If thou givest all and not thy life,
Thou hast given nothing."

He then sees Agnes sitting quietly as she did amid the storm, and asks her of what she is thinking. She paints to him the needs of the people as she sees them. As he muses over her words a woman is seen coming over the hill, who proves to be his own mother whom he has not seen for many years. A very painful scene

takes place. She reproaches him with neglect of her, and with his folly in risking his life.

When he retorts upon her the question, "has she fulfilled her task," she threatens to strike him. She then changes her tone, and tells him she has left him all her property. "On what condition?" he asks. She demands only one, "that he shall be careful of his life, and keep up the Family." He then tells her how he saw her, after his Father's death, search the body and his hiding places and take possession of all his treasures and complain that there was no more.

She is deeply moved and describes the misery of her life since, but reminds him that she has made her son a Priest, that he may take her inheritance and bless her soul. The relentless Brandt exposes her unholy state of mind, and finally promises that he will stand by her death bed and give her the consolations of Religion only on condition "that she will give up her whole inheritance, and go naked to her grave."

Brandt accepts it as his duty to stay and minister to this neglected people. Then Einar comes in and tries to tempt Agnes to go forth with him to distant lands of beauty and joy. Brandt sets the alternative before her, and tells her, how severe his life-plan is.

"I am stern in my demanding,
All or nothing I desire."

The lover pleads with her, but Agnes says:

"Night for me! Even to Death!
Rosy morning gleams beyond."

* * *

The third Act opens with a conversation between Brandt and his wife. Three years have passed and his mother though drawing nigh to death has not sent for him. Agnes bids him to go to her unsummoned, but he refuses unless she is repentant. Then Brandt speaks of the sunless situation of their home, and Agnes confesses that she fears for the health of the child; but Brandt says:

"God is still good, it cannot be!"

Here follows the sweetest interchange of satisfaction in their love which makes duty sweet and easy.

Brandt says:

"You make the bridge
Upon my way to Heaven;
Man cannot embrace Humanity
Until he loves one alone.
I must love, I must grow warm,
Else would my longing heart be stone."

Then Agnes reminds him of his severity and says many a one is broken down by his "All or nothing." He describes his idea of Love stern as the Divine Love and closes with:

"Only that which is lived out brings Salvation."

AGNES: "I follow thee on thy path."

BRANDT: "If we go together, it is not steep."

The Doctor comes in and tells him of the danger of the child exposed to these mountain chills, and

also of his mother's extreme illness. As he bends in agony over his child, now hot with fever, a messenger comes to him from his mother, offering half of her wealth for the Sacrament. The Scene is repeated, as she increases her offers to everything but the All. The son persists in his stern refusal in spite of the entreaties of Agnes.

The Steward then holds a long conversation with Brandt on his expected inheritance, on his manner of speaking to the people, etc., and ends by advising him to leave this dreary place and go into a broader, fairer sphere. Brandt refuses to leave the work he has accepted. He says:

"The best follow my flag."

But the man of the world replies:

"The most follow mine."

The Doctor tells him of his mother's death, and that her last words were,

"God is not so hard as my son."

He then says that Brandt clings to the old law, but that now above all is the command "Be humane." Brandt echoes his word as the type of modern weakness and cowardice, and asks:

"Was God humane, when Jesus Christ
Bore death upon the cross?"

The Doctor visits the child and advises the father to take him from this sunless spot, or he will die. Brandt consents to go, and bids them to bring the child out in his little cot. The Doctor then points out to him his inconsistency in his demands on others and his yielding to his own feelings. Brandt feels the force of the accusation,

"It hits, the bird is shot."

As Agnes comes in with the child and stands appalled at Brandt's face, a man enters and reproaches him with his purpose of leaving his people. He tells him how many have been brought from death unto life, and that they will fall again into sin, if he leaves them. The crazy maiden Gerd comes to upbraid him, calling him to her church among the snows and telling him that his church is without a Pastor and without honor, and what a triumph there will be among witches and evil spirits when he leaves his people. Agnes entreats, "Let us go"; but he asks, "was I first a Pastor or a Father here?"

The struggle is bitter, but the wife yields to her husband's will, asking, "Are you sure 'tis God's command?" He answers, "Yes."

And yet he forces her in words, to make the desperate choice, and she replies, "Go the way that God commands." As she turns back to the dreary house he prays, "Jesus, Jesus, give me light!"

The child dies, the sacrifice is completed.

[TO BE CONCLUDED.]

THE DIVORCE PROBLEM.

BY SAMUEL H. WANDELL.

THE evils of the modern divorce system are manifold and subtle; the monster is more difficult and dangerous to combat with than was the deadly Hydra which was slain by Hercules upon the Pontine Marshes. Some of the most prominent of the defects in existing laws may be mentioned and remedial measures suggested.

It must be conceded at the outset that divorce is a necessity; nevertheless it should be properly restricted and only sought for in extreme cases where the state of marriage has become fraught with misery and unhappiness, and when the welfare of the parties themselves and of the public will be promoted by a dissolution of the matrimonial relations. On the other hand, it is equally clear that unlimited divorce tends to lessen the respect which every citizen should entertain for the holy state and binding obligations of marriage, tends to encourage immorality, to bring about a social chaos and to disintegrate the family circle which is the corner-stone of society. Divorce can only be regarded as an evil, but, nevertheless, it is a *necessary* evil.

The history of legislation shows that where no divorces have been granted, illicit connections and illegitimate children have been the result. The legislature cannot control the passions of mankind; therefore, its declaration that the marriage tie is indissoluble, cannot compel a strict adherence to the duties and obligations of marriage. Until a recent period, judicial divorces, granted by the courts under statutory authority, were wholly unknown in England. Parliamentary divorces, granted by special legislative enactments, were costly luxuries, obtainable only by the very wealthy, and beyond the reach of the common people. As a consequence there were numerous second marriages without divorce, concubinage and illegitimate children increased to an unheard of extent, while the polygamy statutes became practically a dead letter. In South Carolina no divorce law was ever enacted prior to 1872 by the State legislature. It has been the proud boast of some jurists that "to the unfading honor" of that State "a divorce has not been granted since the Revolution." There is no fitter commentary on this system than a statute of South Carolina regulating the amount of property which a *married man* might give to his *concubine*, showing that meretricious connections must have existed in great numbers in order to necessitate such an enactment. If further demonstration of the pernicious results of the practice be necessary, it may be found in the following extraordinary statement of one of the judges of the South Carolina courts, made in delivering an opinion from the bench: "In this country where divorces are not allowed for any cause whatever, we sometimes see

men of excellent characters unfortunate in their marriages, and virtuous women abandoned or driven away homeless by their husbands, who would be doomed to celibacy and solitude if they did not form connections which the law does not allow, and who make excellent husbands and wives still, yet they are considered as living in adultery, because a rigorous and unyielding law, from motives of policy alone, has ordained it so."

The policy of allowing divorces to be easily obtained, by consent of the parties, has proven disastrous to every country in which the experiment has been tried. The Romans permitted great freedom of divorce in the luxurious days of the Republic; a husband and wife might renounce the marriage relations at pleasure, the maxim of the civil law being that *matrimonia debent esse libera*. During the first five hundred years of the Roman republic no divorces were granted; the decadence of Roman power speedily followed the era of unlimited divorce which magnified and inflamed the most trivial marital difficulties and destroyed the family honor, once so dear to the Roman heart. After the French Revolution, the Scarlet Goddess of Divorce found herself unfettered, drunk with power, and a host of willing devotees at her shrine. It is stated that six thousand divorces were granted in Paris in the brief period of two years and three months. In the year 1816 the divorce clauses of the Code Civil were abolished and all subsequent attempts to restore unlimited freedom of divorce in France have been unsuccessful.

The rendering of the marriage relation indissoluble is the opposite extreme from allowing divorces at the pleasure of the parties. Neither extreme is calculated to promote the general welfare or morality of the public, although the latter is perhaps the more dangerous and inimical to the welfare of the community. A middle ground of restricted divorce seems best adapted to our institutions. Nor is the Catholic doctrine of prohibiting divorces *a vinculo* but allowing divorces *a mensa et thoro* to be commended. The history of the Roman church shows that the Pope has been allowed, when he deemed it proper, the privilege to dissolve a marriage absolutely. If it was proper to dissolve the marriage in any one instance, it may have been equally proper and expedient in many others where the Papal indulgence was not granted. If it was *per se* wrong to dissolve the marriage, then it should never have been dissolved under any circumstances. The force of the arguments advanced by the defenders of the Catholic policy becomes thus materially weakened by this inconsistent practice. A still greater objection to the canons of the church of Rome is the practice of allowing and advocating divorces from bed and board, which divorces have been condemned by some of the most eminent jurists as being pernicious to public morals and the good of society. Such divorces leave

the parties in the unfortunate position of a wifeless husband and a husbandless wife, yet fettered by the bonds of matrimony; place them in a situation where, being human, they are constantly subject to temptation, and, as has been truly observed, frequently punish the innocent more than the guilty. These compromises with divorce were unknown to the ancients, were not mentioned in the Scriptures, but were devised by the Latin church and established by the council of Trent.

Admitting then that divorce is necessary, that it should be absolute when granted, it follows that it should be considered only as an extreme measure, adapted only to extreme cases. The increase of divorce in this country is out of proportion to the increase of the population. It is a blot upon our national escutcheon which should be speedily removed. It may be difficult to state all the causes which unite to produce this multiplicity of family infelicities, this flood of divorce applications which is constantly pouring into the courts. We may enumerate some of these causes which produce such effects as follows:

1. Too many hasty, ill-considered marriages between uncongenial, unsuitable persons.
2. A lack of proper statutory regulations as to the solemnization and evidence of a marriage.
3. A lack of uniformity in the marriage and divorce laws of the different states, permitting and encouraging evasions of statutory prohibitions and penalties.
4. A lack of proper respect for the solemnity and sanctity of the marriage relations.
5. A lack of public interest regarding the evils of divorce and a consequent lack of popular education upon the subject.
6. A lack of a high standard of ethics in the legal profession regarding the subject of divorce.

These several contributing causes may be but a portion of the many which tend toward increasing the number of divorces, but they are largely responsible for the mischief complained of.

There can never be an entire reform in divorce laws while marriage is legally defined as "a civil contract." The institution of marriage is too sacred and holy, too potent for good or evil to be considered as a mere matter of barter or bargain between man and woman. That marriage is not simply a contract is shown by the fact that a contract may be rescinded or abrogated by consent of the parties themselves, while the Sovereign power of the state alone can dissolve the marriage tie. It is true that the parties may make a contract or agreement *to marry*, but when it is executed, the relation itself is but the fruit of the contract and not the contract itself. The contract is wholly merged and swallowed up in the *status* of the parties, which is the

true theory of marriage law. Marriage is one of the domestic relations and can no more be properly termed a contract than can the domestic relation of guardian and ward. Both relations are usually assumed voluntarily, but neither are civil contracts.

The mischief of considering marriage in the light of a contract is manifest in the unsettled and varying policy of the law as interpreted in the several states. The Courts seek to apply the rules of law governing *contracts* to the *status* of marriage, relying upon the definition given by the jurists that marriage is "a contract." The result is a chaos of the marriage and divorce laws, and a diversity of irreconcilable decisions of the Courts which pronounce pure-minded, chaste people adulterers, bastardize their issue and condemn innocent persons to prison for unintentional bigamies.

Another evil of viewing marriage as a contract lies in the fact that it divests matrimony of its dignity, holiness, and purity, and makes the line of demarcation between meretricious, unhallowed intercourse and sacred marriage, difficult to determine. The Court of last resort in New York State has decided that "the law is well settled that a man and woman, without the intervention of minister or magistrate, by words of present contract between them, may take upon themselves the relation of husband and wife and be bound to themselves, and to society as such, and if after that the marriage is denied, proof of actual cohabitation as husband and wife, acknowledgment and recognition of each other to friends and acquaintances and to the public as such, and the general reputation thereof will enable a Court to presume that there was, in the beginning, an actual *bona fide* and valid marriage." How strangely inconsistent is the law which compels a contract relating to the most ordinary business transactions to be in writing if it is not to be performed within one year; which requires a conveyance of land to be under seal and formally acknowledged; but which permits marriage, which continues throughout a lifetime, which is a surrender and conveyance of the most sacred treasures of the heart, to be contracted in this loose, informal manner!

Marriage should be made a solemn and impressive rite, should be celebrated by suitable and proper nuptial ceremonies, in order that the parties themselves or all who witness the ceremony may realize that it is a step that once taken cannot be retraced, and one that should be duly considered before it is taken. Ceremonies dignify, elevate, and sanctify marriage, and are evidence of marriage. They should be required by law, and, if required, would put an end to the looseness and laxity of the marriage laws in many states. Human beings should not be allowed to "pair off" like birds of the air, by simple words of present contract, hastily spoken, without witness, without the in-

tervention of minister or magistrate, thus opening the door wide for perjury and fraud.

There is a want of uniformity in the laws of the different states regarding the necessity of a formal celebration of marriage. In Kentucky, Maryland, Massachusetts, North Carolina, Tennessee, and Texas, a celebration is necessary, the Kentucky statute providing that a marriage is null if not celebrated. In Delaware, Maine, Virginia, and West Virginia, a celebration is probably necessary, while in Arkansas, Florida, Indiana, Kansas, Nebraska, Nevada, Rhode Island, and Vermont, it is probably unnecessary. In Alabama, California, District of Columbia, Georgia, Illinois, Iowa, Louisiana, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, South Carolina, and Wisconsin, no celebration is necessary. In Connecticut, Colorado, Dakota, Oregon, and Utah, the question seems to be undecided.

In England it seems to be now settled that a ceremony is necessary, but at the time of the adoption of our common law, the Dalrymple case was regarded as controlling, which held no celebration necessary. There were several reasons why the early American colonists should have decided that a contract of marriage was a valid marriage, even although not formally celebrated. They fled from England to escape religious persecutions and it is hardly reasonable to suppose that a clergyman of the hated faith would have been a welcome guest at their wedding feasts. The difficulty of obtaining a minister "in holy orders" in a new and sparsely settled country was doubtless another reason why they did not deem it essential to have a marriage formally celebrated, and the payment of a marriage fee would doubtless have been inconvenient to the struggling pioneers in the virgin forest. But these difficulties and objections do not exist to-day, and it is evident that a custom or law, suited to the God-fearing Puritans in their simple life, has no place in this country to-day. The marriage *per verba de presenti* is but a step removed from concubinage, tends to lessen the respectability of the married state, and to encourage and increase hasty, ill-timed unions, thereby encouraging and increasing divorce. Fetters thus lightly assumed are liable to be lightly worn and lightly broken. Let the statutes of the several states be amended so that this foul, mis-shapen monster shall be banished from our land, and great progress will have been made toward needed reform.

A universal marriage law, which shall secure a uniformity of decisions of the various courts, a uniformity of statutory regulations, which shall prevent the subject of one state going beyond the territorial limits of his own commonwealth into another state for the purpose of evading the law and returning home with per-

fect impunity as soon as his purpose is accomplished, which shall declare a marriage contracted, or a divorce granted in one state equally binding and effective in any other state is "a consummation devoutly to be wished," and would have a salutary and a wholesome effect upon our jurisprudence.

The legal profession has a great responsibility in the matter of the increase of divorces in this country. Every reputable lawyer should realize that he is a sworn officer of the court, and, as such, owes grave duties toward the public. He should not encourage his clients to obtain divorces, but should give each case careful and conscientious study before bringing it into court. There are no words in the language strong enough to condemn the lawyer who advertises to procure divorces "confidentially and cheaply, with no publicity." The lawyer who does this may defend himself by saying that he practices the statutes, and that the statutes alone are to blame. This is evading the real issue; by throwing out such alluring bait he seeks to draw fish to his net for his private gain, and persons who might not otherwise apply for a divorce are led by his attractive headlines to seek his advice and assistance to obtain a divorce. Divorces should not be advertised and hawked in public like a patent medicine, nor should the lawyers cry their wares like tradesmen. A lawyer should not bring on a claim for a divorce with the same alertness and zeal with which he would sue an over-due account or a protested promissory note. He should hesitate to separate for life two people who have taken upon themselves the vows of marriage. It is only where there has been a flagrant violation of conjugal duties, where it seems evident that the happiness of the husband or wife and of their children, if any, will be promoted by the step, when the evidence is clear and convincing, that a divorce should be sought. Haste should be made slowly in order to afford the client ample time for reflection upon the intended course.

There is good reason to doubt the wisdom of restricting divorce to the single ground of adultery. Experience shows that where this rule prevails the records of the courts are pregnant with perjury and fraud, while collusion and artifice are often resorted to in order to evade the rigors of the law. There are other matrimonial offenses which should furnish a ground for absolute divorce, among which may be enumerated willful desertion for a long period and continued cruelty. If these causes were added to the list in those states where adultery alone is now the ground of absolute divorce, it would result in avoiding in the future many of the questionable practices now resorted to and would leave the professional divorce detectives without employment.

Public sentiment is the powerful lever which moves

the world, by which all great evils have been overthrown and all great reforms accomplished. There is needed then, an education of the people upon the cognate subjects of marriage and divorce. The press, the pulpit, the bar and the platform, the sermon and the novel, each and all have a mission and a duty in this regard. When the popular mind is aroused upon the subject, when legislators, lawyers, clergymen, editors and the whole people, with one accord, devote themselves to this object, then will this blasting simoom of unhappiness, ruin and disorder be stayed, then we shall have the longed-for reform which shall check this growing evil, avert its menacing dangers, and, at the same time, provide an adequate remedy for all persons justly entitled to the benefits of divorce.

NAME AND LEGEND OF "ALERAMO."

BY PROF. GIACOMO LIGNANA.

[In Italy recently there has taken place an ardent discussion concerning the etymological derivation of the historical name of *Aleramo*. *Aleramo* figures as the ancestor of the renowned house of Montferrat, having married *Gerberga*, a daughter of Borengario, king of Italy. Their son William became the first marquis of Montferrat. His descendants and successors thereupon played a very conspicuous part during the crusades, and always remained staunch Ghibellines. The city, from which this family derived its name, was situated on the river Po, but it was destroyed in the wars of the 15th century. The Marquises of Montferrat thereupon resided mostly at Chivasso, Moncalvo and Casale. Gian Giorgio, who died in 1533 was the last male-descendant of this noble family; the marquise then passed to the house of Gonzaga. (Conf. *Nouvelle Biographie Générale, publiée par M. M. Firmin Didot Frères sous la direction de M. le Dr. Hofer, Paris 1891, Tome 39ème*.) With an inexpressible levity several modern Neo-Latin philologists of Italy, among them the poet Carducci, actually a professor of Neo-Latin philology at the University of Bologna, have sought for purely Italic elements in the historical name of Aleran, the ancestor of the Montferrats, whose father appears to have been an immigrated Frankish noble about the close of the 10th century. The following is a reply to Prof. Carducci from Giacomo Lignana, the distinguished professor of Sanskrit and Comparative Philology at the University of Rome. The manuscript of this article was sent to us by Prof. Lignana, who wished it to appear in the columns of an American magazine. Although the discussion of the etymologies of words is not in our line, we are pleased to present to our readers a contribution from the able pen of the Roman professor. The article has been translated by Prof. Albert Gulgolien.]

I HAVE been asked, what I thought about the origin of the name and legend of *Aleramo*, the ancestor of the Marquises of *Monferrato*. I think that both, the name and legend, are of Germanic origin; and I shall begin with the name.

According to the modern Italian poet Carducci, Professor of neo-latin philology at the university of Bologna, the name of *Aleramo* ought to be derived from a Piedmontese dialect of the middle-ages; and he explains it as follows.

In the year 1880 Prof. Förster of Bonn published from a manuscript in the Library of the university of Turin 22 sermons in a Gallo-Italic dialect, which, according to him is Piedmontese. The manuscript dates from the 12th century. In these sermons occur the words *Aler* ix, 31; and *aleretza* viii, 23, 12, 51 which signify the same as *allegro*, *allegrezza* (glad, gladness) in the modern Italian language; and there is told, for example, the story of the exploring party,

sent out by Joshua beyond the river Jordan; when the explorers, having been saved by the sacred woman of Raab, returned to Joshua and to the camp, the manuscript says: "*Quant Josue les vit e l'ost, si forun aler,*" to wit, when Joshua and the army saw them, they were glad.

Now, in the legend of *Aleramo*, as preserved by Galvano Fiamma, and by others, as well as by Frate Giacomo D'Acqui in his *Imago mundi*, completed 1334, it is related, that a certain German noble arrived in Lombardy accompanied by his wife, and that during his stay at the hamlet of Sezadio his wife gave birth to a very beautiful male-child, "*quem multi nobiles tenentes et illum baptizantes Alerammum denominaverunt, dicentes Deus in tua peregrinatione gaudium tibi dedit.*"

From this *gaudium* or gladness, common to every loving parent, Professor Carducci deliberately wishes to derive the historical name of *Aleramo*, to wit, from *aler* (allegro, glad) of the Gallo-Italic dialect of the middle-age, and further in a note to his article, published in the *Nuova Antologia* of the year 1883 Carducci maintains, that he owes the absolute certainty of this interpretation to his colleague E. Monaci, Professor of Neo-Latin philology at the University of Rome.

But in reality the phonological derivation of this word *aler*—allegro, is being hotly contested by all serious students of neo-latin philology. The German Prof. Förster himself is not satisfied with the derivation proposed by Diez, namely *alacer*; Diez, on the other hand, through the vowel-change of *a* into *e*, believed that the word was originally French, and from the French had passed into the dialects of Italy. Still others, while perceiving, that in old-French one finds written *halegrée*, saw in the *h* a mark of Germanic origin. The difficulty of the passage of the *a* into *e* is solved, when it is observed, that the *alacer* of classical Latin, is *alacer* in archaic Latin, and *alaceris* is *alaceris* in vulgar Latin. At all events it remains certain, that the *aler* in the above-quoted Gallo-Italic, means *allegri* (glad), by dropping the *i* of the plural.

But, it remains extremely doubtful, whether the name of *Aleramo*, the first Marquis of Montferrat, was really derived from this word *aler*. It does not seem probable, that the German noble, who with his wife arrived at Sezadio, should have given his infant son a Piedmontese name. This would have been an exceptional instance in the history of the middle-age. The contrary hypothesis to me seems far more probable, namely, that the German noble bestowed a German name on the infant, that had been born in Italy, and the rather, because the German after a month's stay at Sezadio, again set out with his wife, to continue his journey to Rome, leaving behind the infant, entrusted to the care of a German nurse, just as indeed it

is related by Frate Giacomo d'Acqui: *filium suum Aleramum cum nutrice de lingua sua dimittant donec revertantur de Roma.*

Prof. Carducci, besides, only explains the first, but not the last syllables of the Aler-amo. What do these last syllables denote, or what value have they? Do they represent a suffix, or another word, which added to the first make up the entire compound?

All the writers of the time are silent about Aleramo, and there are scarcely four genuine contemporaneous vellums, from which can be gathered anything concerning his personal affairs, such as his promotion from a simple Count to the rank of a Marquis. Among these the oldest records, belonging to the year 933 and 935, (according to others to the years 934 and 938,) are the donations granted by the kings Ugo and Lotaire, "*jure proprietario cuidam fidei Alledramo* (or as writers Renevenuto di S. Giorgio in the annals of Muratori, Vol. xxiii) *Aledramo Comiti.*

The name, therefore, of the first Marquis of Monferrato in the donations of kings Ugo and Lotaire is not Aleramo, but Alledramo, or Aledramo.

Any one, who is the least familiar with mediæval names, must immediately discern here, and will recall to mind, a whole series of analogous Germanic names; for example, Guntram, Bertram, Wolfram, etc., in which the last syllable represents, not indeed a suffix, but another word, which makes a compound with the preceding syllable. *Ram* is equivalent to Rabe (raven), in old German *hram*, *ramm*, whence *Guntram*, raven of war (*gundja*, war), *Bertram*, splendid raven, and *Wolfram*, wolf-raven, that is, terrible raven. In the two last syllables of the name Aleramo, or Aledramo, I therefore perceive the above identical word, namely, the mythical raven, the messenger of Odin. And what do the two first syllables denote? The explanation is obvious. It will suffice to recall to mind the name of the king of the Ostrogoths, Alaric, which stands for Athalaric, and Albert for Adalbert; *athal*, *adal* being the *adel*, *edel* of modern German, and denoting noble. Thus likewise the name of the mother of Aleramo, Alasia, standing for Adelasia. The name of the father of Aleramo, according to some is William, but according to others Allibrand. The latter name at once recalls to mind the very old fragment of Germanic lay, published by Wilhelm Grimm, and which begins:

Ik gihôta dhat seggon
Dhat sih urbetun
Enom muotin
Hildibrant emt Hadubrant
Untar herion tuem.

I have heard it said, that Hildibrand and Hadubrand (namely father and son) challenged each other to single combat in the midst of the two armies. The German lay, as we have said, is only a fragment, and

it does not tell us which of the two was killed in the duel, the father or the son, but it was probably the latter; just as below the walls of Brescia,—near the very spot, where later German lays have laid the scene of the duel between Hildibrand and Hadubrand,—Aleram, the father, kills his son Otto, without knowing him. In our opinion the name and legend of Aleramo must be of Germanic origin.

THE ETHICAL PROBLEM.

IN REPLY TO MR. SALTER.

Before proceeding to the main subject of our controversy, which refers to the question of the dispensability or indispensability of a basis for ethics, I shall briefly dispose of a few side issues of less concern. In so far as they are side issues I might pass them over in silence. But it appears that they presuppose principles which are of great ethical significance.

THE ETHICAL IMPORT OF CRITICISMS.

As to the occasion of the three lectures, I am told that my article, "The Basis of Ethics and the Ethical Movement," was not the cause which suggested to the speaker and the Board of Trustees of the Society for Ethical Culture at Chicago, the idea of extending the invitation to me. The invitation was tendered without any special motive, and would have been tendered even if that article had never been written.* I confess that I was under the impression that the society wanted me to explain our views with special reference to their own position. It is a principle of *The Open Court* to solicit criticism, and we expect that the same principle animates every one who is eager to find out the truth. We believe that the truth can be established only by a square fight, where ideas are pitted against ideas in fair and honest controversy. We do not want to intrude upon the world with our private and personal pet theories. We want to bring out the truth. If our views are wrong, we want to be refuted, and if we are refuted, we shall give up those ideas which we have recognized as errors.

Mr. Salter says, "the ethical movement believes that philosophical systems should have a free field and that *that* one should survive whose claims prove the strongest in the struggle for existence, and all within the fold of an ethical fellowship held together by a community of moral aim." Very well then, we act accordingly: we propose a certain view and struggle for it. Yet we do not enter the lists vainly or merely for the sake of controversy. We do not struggle for something which is indifferent, for we maintain that it is *the most important question* with which the members of the ethical societies can concern themselves."

* Should a second edition of "The Ethical Problem" be needed, I shall replace the words, "In consequence of this article" by the clause "soon after the publication of this article."

There is, at present, a fashionable tendency to consider every struggle, whatever be its nature, as bad. War, competition, emulation, criticism, are considered as more or less barbaric forms of one and the same principle—the principle of strife; and this principle of strife is denounced as the source of all evil. The abolition of all strife, it is expected, will usher in the beginning of a millennium. Whatever may be true in this view, we see no other possibility of arriving at truth than by struggling for it, and the struggle for truth appears to us as a duty.

The weapon in the struggle for truth is criticism. If we believe we are in possession of truth, let us expose our opinion to the criticism of those competent to criticize. If we differ in opinion, let us compare our opinions and investigate as to which opinion is nearest the truth. The invitation to speak before the Ethical Society, was made with the special understanding that we were to propose *our* view on the ethical problem; and it would not have been proper to ignore the position of the Ethical Societies entirely. I should be sorry to "have taken an occasion, incidentally, to reinforce an earlier criticism"—if that criticism was not welcome. Having stated a difference of opinion, it seemed to me, that a further explanation, a justification was demanded. Could I have acted otherwise since, after all, criticism and counter criticism are the sole means of arriving at truth? And then, our struggle for truth is not a personal fight between our private views in which you or I should hope to come out victorious. Our struggle for truth is rather a co-operation, in which every one of us contributes his share of insight and tries to free himself from the errors that might be mixed up with a partially correct conception of truth.

Mr. Salter is mistaken, when he speaks of "an attitude of antagonism" towards the ethical societies on our part. We do not intend to antagonize the ethical societies; on the contrary, we intend to promote their welfare; and we therefore call attention to that which we consider as their most urgent and indispensable duty. It is their duty to build their house upon a rock, so that it will withstand the rain and the winds. Our antagonism, if our attitude is to be characterized by that name, is an antagonism arising from a common interest, from a religious zeal for the same great cause, from a desire that the ethical societies shall not neglect the one thing that is needed, that they shall have been founded to stay for good, to prosper, to increase, and to conquer.

INTUITIONALISM AND SUPERNATURALISM.

Mr. Salter blames me for "carelessness in treating of ethical theories;" he says, that I identify Intuitionism with Supernaturalism. Mr. Salter adds:

"And Paley on the strength of his theology is called an intuitionist, while he was, in fact, one of the founders of utilitarianism."

Undoubtedly Paley was one of the founders of utilitarianism. His theory is characterized in his own words as follows:

"God Almighty wills and wishes the happiness of his creatures."

Paley is a utilitarian with reference to the purpose and aim of ethics. He is generally characterized as "a theological utilitarian"; nevertheless I do not hesitate to class him among the intuitionists, "on the strength of his theology" as Mr. Salter rightly remarks.* Professor Sidgwick (in the *Encyclopædia Britannica*, vol. viii, p. 606) describes Paley's views in the following words:

"To be obliged is to be 'urged by a violent motive resulting from the command of another'; in the case of moral obligation the command proceeds from God, and the motive lies in the expectation of being rewarded and punished after this life."

Intuitionism if it means anything means that the moral command comes to us in some unaccountable way mysteriously and directly from some sphere beyond. I confess myself guilty of identifying "intuitionism with supernaturalism." Everybody who maintains that the basic view of intuitionism is true, is in my opinion to be classed as an intuitionist. If the sense of duty, the moral ought, the idea of right or wrong of conscience or whatever we call it, is an unanalysable fact, if our knowledge of it comes to us not through experience, but through some mystical process concerning which philosophy and science can give no information, we are confronted with a dualistic theory. We have in that case to deal with a world-conception recognizing the existence of certain facts, which are of a totally different character from all the other facts. Whatever name we may be pleased to give such a conception, it is and will remain supernaturalism or at least extra-naturalism.

I look upon intuitionism in ethics and upon its philosophical correlative supernaturalism, as a kind of scientific color line. Any one who attempts a conciliation between supernaturalism and naturalism is a supernaturalist, and every one who attempts a conciliation between intuitionism and other ethical views, is an intuitionist.

Are not all intuitionists at the same time utilitarians, in so far as they expect that in the end the good will be rewarded and the bad will be punished?

* Whether Paley is represented as an intuitionist or in the usual way as "a theological utilitarian," does not in the least affect the subject of our controversy. I selected his name, because his works are still read and better known than those of other theological teachers of ethics. I confess openly that I should not have mentioned him as one of "the representative authors of intuitionism," and shall, in any eventual future edition of "The Ethical Problem," replace his name by those of "Price and Reid." I do not, however, cease to count Paley among intuitionists.

We can reconcile intuitionism with utilitarianism, if utilitarianism means that in the end the good will be rewarded and the bad will be punished. But we cannot reconcile intuitionism with any theory that considers conscience as being of a natural growth, so that it can be analysed and scientifically explained.

Utilitarianism is that theory which explains the good in terms of the useful, and thus misleads people to identify the useful and the good. If utilitarianism means that the consequences of good deeds are somehow always useful, (perhaps not useful to ourselves, but useful to somebody, and though perhaps not useful in the present, yet useful in the future,) I shall not hesitate to range myself among the utilitarians, however strongly I protest against any identification of the useful and the good, against making the usefulness of a deed the test of its moral goodness, and still more against defining the good in terms of pleasure.

UTILITARIANISM AND HEDONISM.

As a further carelessness in treating of ethical theories, Mr. Salter mentions the distinction made between utilitarianism and hedonism. Mr. Salter says:

"Hedonism is treated separately from utilitarianism although every form of utilitarianism has been hedonistic, modern utilitarianism being simply universalistic hedonism."

I have deliberately treated hedonism and utilitarianism as separate theories, because I consider it necessary to make a distinction between them. Hedonism proposes the pleasurable, and utilitarianism the useful as the ultimate test of ethics. These two propositions are in my opinion by no means congruent. Most utilitarians, it is true, (I hesitate to say "all" utilitarians,) define the useful as that which affords the greatest amount of pleasure. I see, nevertheless, sufficient difference between the useful and the pleasurable. The term useful comprehends many things or processes which cause much pain and produce little pleasure.

While we uncompromisingly reject hedonism, we see a possibility of reconciliation with utilitarianism, provided the utilitarians drop for good the principle of hedonism, and exclude from the term useful all those transient advantages (generally considered as useful) which occasionally come to man in consequence of bad actions—for instance wealth gained by fraudulent means. In short there can be no objection to utilitarianism if we limit the term useful strictly to that kind of usefulness which is the inevitable consequence of good actions, provided we agree concerning a further definition of good. Consider, however, that the main motive perhaps of all immoral actions is the presumed usefulness, and so far as the acting individual is concerned, not unfrequently the actual usefulness of the consequences attending immoral actions, and you will

confess that it is one of the most important duties of ethics to set us on our guard against the temptations of an imagined utility, and to inform us that what appears useful is not always useful, that what is useful now, may become very obnoxious in the future, and that what is useful to one individual may be detrimental to others. There are many phases of the useful which ethics cannot and does not recommend, and we must have a criterion for that kind of usefulness which is desirable. This criterion alone is the standard of moral goodness; and the character of every ethics depends upon what is to be considered as this criterion.

It is characteristic of almost all utilitarian systems (if they enter into the subject at all) that this criterion is nothing that transcends the usual conception of utility. The criterion of utilitarianism is usually defined as the greatest happiness for the greatest number. Wherever a conflict arises between two or more things that are useful, utilitarians propose to give preference to the greater amount of usefulness; the quantity of usefulness has to decide, not the quality.

Quantity or intensity of happiness, and quantity of usefulness, can as little constitute moral goodness as a majority vote can in moral questions decide as to what is right or wrong. If, however, the quality of different kinds of utility were to be considered as the determining factor of goodness, the useful as such would cease to be the ultimate criterion of ethics, and that quality would have to be considered as the ultimate test of goodness which makes this or that act ethically preferable.

So long as this quality, which gives to one kind of acts with useful consequences the value we call moral goodness, is not singled out as the characteristically moral feature, I shall continue to maintain that utilitarianism, and most so hedonistic utilitarianism, slurs over the difference between moral goodness and material usefulness.

MONISM AND THE ETHICAL MOVEMENT.

Mr. Salter says:

"What I had at least hoped for, was an exposition of the way in which the monistic world-conception would serve as a basis of ethics, for to me personally at any rate, and I think, to many more, this would have been of considerable interest; but monism is classed along with agnosticism and materialism as one of the thought-constructions of theorizing philosophers."

My lectures on the ethical problem were intended to discuss the principle of ethics and its dependence upon a conception of the world. They were not intended as an exposition of the ethics of positivism or of monism. It is not an exhaustive work on ethics, but a modest pamphlet ventilating the problem of ethics. Nevertheless, the solution of the ethical problem is sufficiently indicated so that the reader can form a clear conception as to the basis, the construction, the

plan and the scope of that system of ethics which we defend. But Mr. Salter should not be astonished to find monism classed along with agnosticism and materialism among the world-conceptions of theorizing philosophers. Are there not many philosophies pretending to be monistic? Shall we accept whatever goes by the name of monism? Or is it advisable to warn against all philosophies except our own? Our own view is certainly not exempt from criticism. It has to be classed, and I have purposely classed it among the theories to be criticised. It must be considered as a mere theory, until its character as being a statement of systematized facts is proved.

A distinction must be made between 1) the positive and monistic philosophy that is growing now in the minds of men, and 2) the monism and positivism which we represent. There are a great number of philosophers and scientists who work in the same line as ourselves, and many truths are, with more or less lucidity, pronounced independently by different scholars, sometimes in terms which seem to contradict one another. I am sure that if we did not contribute to the growth of this monistic world-conception, it would nevertheless develop. We do not create it; it is not an invention of ours to which we have any patent right. All we can do is to hasten its development to mature its growth, to concentrate the many different aspirations that tend to the same aim.

Should the special work we are doing in exhibiting our monistic view of the universe happen to be radically wrong, it will pass away. The constructive work we have been doing will in that case be transient, and its usefulness will be confined to having served as a stimulus to thought.

The monistic philosophy that is growing in mankind is an ideal. Our special and individual view is an attempt to work out the realization of the ideal. But the fact that we consider our view as an attempt to realize the ideal philosophy of the future, does not raise our special representation and elaboration of it above criticism.

A similar discrimination must be made between the ethical movement and the ethical societies. There is an ethical movement preparing itself among mankind, and the ethical societies are one important symptom of this movement, but they are not the sole symptom. The ethical movement is perceptible also in the churches; it is perceptible in the Secular Unions and in the political life of our nation. The ethical societies, it seems to me, might become and they ought to become the centre of the ethical movement; and they would become its centre, if they understood the signs of the times.

The ethical movement and the new philosophy of positive monism are closely allied with each other.

Indeed, I consider them as the two main characteristic features of the spiritual life of the future. Positive monism in order to be complete, must be practically applied, it must become a religion. It becomes a religion by bringing about an ethical movement which bases morality on the facts of life, so that the ethics of supernaturalism are replaced by natural ethics.

The ethical movement cannot refuse to go hand in hand with the philosophy of the times. It need not commit itself to this or that particular representation of monism, but it must upon the whole recognize the basic principles of the coming religion of positive monism; for if it does not, the movement will be of no avail, and can be of no use to future generations to whom the old and antiquated views have passed away.

Our desire is to make the leaders of the ethical society understand that this is the vital problem of the day. And here we come to the main point of our controversy; viz., the question whether we can have ethics without having a basis of ethics.

P. C.

CORRESPONDENCE.

THE NEGRO QUESTION.

To the Editor of the Open Court :—

The Open Court has given expression to the views of numerous thinkers on what can or ought to be done with the Negro. All these I have read with interest. At first I was rather inclined to think Prof. Cope was right in his views concerning the subject, and I do not now doubt he has clearly stated some of the evils which may result from the presence of the Negro in our country. But they are here and we cannot help ourselves. We do not wish to return them to a state of slavery, for as slaves they did our nation far more harm than we can conceive of their doing us as free men with all their ignorance. We cannot return them to Africa. It is one of those impractical schemes as utopian as trying to build a railroad across the Atlantic or to the Moon. It cannot be done. Even in the small way that it was attempted in Liberia it has not been a success. I know several of the Negroes of Liberia, maintained there as preachers and teachers, and they are amongst the most intelligent of their race yet they are not at all enthusiastic of what has been accomplished. There is little doubt but in the end a'l the best part of Africa, that most suited to a high civilization will be occupied by the Whites, and the Negroes will be driven to the insubstantial regions or gradually succumb to the stronger races.—What then shall we do with the negro in this country? The Negro question will settle itself, but not without the aid of the Whites. One anthropologist with whom I have discussed the subject, declares emphatically that the negro head is already changing, and that as he acquires property and becomes self-reliant and self-supporting, it will change still more towards the form of the head of the white man. He states emphatically that there are already many negroes with such brains. This means a change of character. It is not possible for him to live for centuries among thrifty self-helping reliant people without to some extent organizing his nervous system like theirs. It does this of itself. He may, and no doubt will, drag the Whites down more or less, but they will vastly more raise him up.

The Rev. Mr. Mayo read a very important contribution be-

for the last Social Science Congress at Saratoga on the Negro question which has been published in full. His predominant idea is Education; and he thinks the failure of the Blair Bill in Congress was a serious misfortune. This bill, as we all know, appropriates many millions of dollars for education in the South. In my own opinion it was well that the bill failed to become a law. So vast a fund would largely have been wasted by unprincipled demagogues. The Negroes should be made to help themselves. If they hunger for knowledge to such an extent that they greedily gather up the fragments of papers thrown away by the Whites to read, as he states, they will find a way to learn. The appetite for knowledge like the appetite for food generally satisfies itself in the end. Besides our system of education is not yet sufficiently developed to suit the need of the negro. What he ought to have is an industrial and ethical education together with a knowledge of the rudimentary branches of learning. All efforts of educators to give him a thorough classical education will and ought to fail. He has not behind him ancestral training suited to appropriate it. It would be like feeding a child with cake and candy, delicious to the taste but ruinous to the stomach. Let none of our energies be wasted in our educating the negro. Already some harm has been done by such attempts.

The Church proposes to take a hand in the Negro question. While others have been talking and writing about it they have already begun their work. The Methodists have been in the field for a long time, and in my opinion they have done harm. The Methodist religion only aggravates in the Negro the emotional nature. He has too much of this already. It would be far better if the Methodists would reform their methods or keep out of the South. They will probably do neither. The Baptists are also doing something, but I am not so familiar with their methods.—The Catholics are aiming to do a large work among the Negroes. They propose to teach them the Catholic religion and add to it mechanical training. This is an improvement on Methodism, but the ethical nature is largely neglected. The Catholics labor under the great delusion that if their form of religious belief is taught, an ethical life follows as a natural consequence. As well might you teach botany and expect your pupil to be a musician. There is no sect that has so many criminals as the Catholics. In New York there are three times as many Catholics in our pauper and criminal institutions as of all other sects, receiving no, or next to no, ethical instruction.—The Episcopal Church has a better plan though not perfect. It is already in operation in Maryland. The Bishop of Maryland, so far as is possible with the help at hand, is building small churches that can be used for schools every day of the week; and in addition to the religious forms of this Church, gives instruction in sewing, dress making, cookery, and house-keeping to the girls and mechanical trades, such as blacksmithing, shoemaking, etc. to the boys. The music, and drill of the church will be beneficial in inculcating discipline good order and kindness, and the greater breadth of thought in the Episcopal Church with their more liberal views will make their work far more valuable.

It seems to me a great pity that a thoroughly practical and ethical system of education cannot be devised for the Negro by our broad and philanthropic men and women; something like that in Felix Adler's school in New York, free from all sectarianism, and carried out by all the Churches. The Negro does not need to have his religious nature cultivated. He is far too religious now, but he is very immoral. It is putting the cart before the horse to teach him religion and not ethics. He needs the latter sadly, not the former. When Christ said to his disciples, "Go and preach the Gospel to every creature," he showed a largeness of mind and a courage and breadth of view quite amazing to timid folks. We may well rank him as one of the great benefactors of his kind; but his followers seem too content to admire and worship and spread a knowledge of his great name, and not to go on perfecting

his gospel till it is suited to the needs of every soul, filled with love, but more than this filled with justice and the spirit of progress, and open to all that is good.

JENNIE CHANDLER.

SCIENCE AND ANARCHISM.

To the Editor of *The Open Court*:—

I REMEMBER about twenty-six years ago being much impressed by the remark in "Essays and Reviews," that what is called reason means only that philosophy which happens at the time to be in fashion.

The philosophy which happens to be in fashion now is unquestionably that of Herbert Spencer. The immense, though one-sided, generalization of progress from a simple indefinite homogeneity to a complex definite heterogeneity, has made a powerful impression on that vast majority who lack originality; and as might be expected, they seize on certain superficial parallelisms much more readily than on the fundamental physical principles of the great English thinker.

Among these superficial parallelisms none is more popular than that conveyed in these words, "the social organism,"—a false, fanciful, mythological expression in all respects worthy to rank with the God of War and the Goddess of Beauty. Society is not an organism. An organism is a living aggregate in which the parts derive their powers from the whole. A society is a soulless corporation, a "dead hand," whose aggregate powers are derived from the parts. It is perfectly correct to say that the organism does what any part does. It is the mule which kicks, not his heels; the bird which soars, not his wings. Cut off the heels or the wings and they are dead. With a society it is just the opposite. It is Caesar who legislates, not the Roman people; Lord Leirum who evicts, not the English nation. Separate Caesar or Leirum from the society which gave him birth, and instead of dying he will create a new society stamped with the impress of his own originality. Moreover, the more evolved the organism is, the less a part can do without it; but the more evolved the society is, the better an individual can do without it. The man Friday cast on a desert island would very likely starve, the man Crusoe founds a state which may be superior to the one he left; whereas a piece of a lowly organism may live, though not improve, while a piece of a high organism dies the moment it is severed.

Objectionable in every point of view, the society-myth is especially censurable in morals. It teaches millions to crawl like reptiles at the feet of one. It enables the whole family of shirks to cast their own sins upon "the state." The standard rebuke of the conservative to the reformer is that he should leave his designs to "evolution." It must be confessed that not every age could have invented so neat an euphemism for other people's labor.

Let us leave the society myth to Aristophanes, who originated it under the name of Demos, and come down to solid facts. The fundamental law of human, as of other action, is that motion follows the line of least resistance. For those animals whose structure enables them to slay and eat, hunger encounters less resistance in getting bloody feasts than vegetable diet. All such animals are carnivorous. One of them is man. But for the weaker species of such animals the line of least resistance indicates association. Wolves, jackals, dogs, and men, are gregarious. Their earliest social form is the troop or horde, which, arising by accretion, resembles a crystal or a stalagmite rather than an organism. All gregarious animals have laws. It is a gross, though common, error to suppose that savages are without them. Savages worship their chiefs as a Chicago voter does not his boss, and observe the customs of their fathers with ten times the scrupulousness of a Puseyite. But there is this great difference between the laws of men and those of other gregarious animals, that the latter, established by natural selection, have an evident relation to the life of

the species; while the former dictated by those foolish inductions which give rise to superstition, and perpetuated by that imitative instinct for which our nearest congeners are notorious, have no relation to the life of the species, but have actually exterminated great branches of it. All human history presents with hideous uniformity one unchanging rule—that every benefactor of his race is persecuted by the "law and order" of his age; and yet men who know quite enough of history to know this, imagine that but for law and order they would all become devils. They pay themselves a most extravagant compliment. It is not the rebellious archangel, but the mowing imitating ape which sticks out all over them. Ask a gentleman why he gets into a portable Black Hole in July, or a lady why she exposes her arms and neck to the wind in January, and the reply must be that it is the fashion, which is exactly the reason the savage gives for daubing himself from head to foot with train oil or running a fish bone through his nose.

The law that motion follows the line of least resistance, and the law that natural selection secures the perpetuation of the fittest, are perfectly independent of each other. By the former, societies are cast into the stereotyped chapters of law, custom, and tradition. By the latter, the more free perpetually triumph over the more servile—the Greek over the Asiatic, the Turanian over the Hindoo, the German over the Latin, the European over the Chinese. Thus they appear as antagonistic principles, one representing "order," the other liberty. I believe, though I may confess some difficulty in proving, that the latter gradually prevails. *A priori*, it seems this must be so. For though the law of least resistance throws the majority into moulds, it throws original men out of them, and no mould is strong enough to resist the direct influence of that Central Power, that "stream of tendency," whence it is but the back set and undertow. But, however that may be, this is very certain, that whenever the conservative principle in any society prevails over the liberal, decay at once sets in. Law and order destroyed Greece, Egypt, Persia, Rome. They are ruining India and China. If history teaches anything clearly, it teaches that in proportion as a people approach the state of Anarchy they advance, not only morally and intellectually, but what might perhaps be less expected, economically; while the thorough establishment of law and order has always been the herald of dulness, vice, and poverty. This is no idle theorizing, no slippery extrusion of words too big and nimble to be held. It is a thesis of fact, checked, even in ancient times, by statistics sufficient even when they are somewhat meagre; and as such I feel perfectly competent to defend it. A philanthropist ought therefore to *desire* the progress of Anarchy, and I think he has with him "the stream of tendency," called by Matthew Arnold "Zeit-Geist," and by one Paul the Spirit of God.

C. L. JAMES.

THE SCIENTIFIC BASIS OF MONISM.

To the Editor of *The Open Court* :—

THE discussion of the tenability of Monism, just closed in *The Open Court*, between Dr. Montgomery and its Editor, cannot fail of being of surpassing interest to philosophic thinkers, dealing as it does with the central problem of our very life. Of the correlation of physical with mental phenomena, Dr. Montgomery rightly says: "This is the essential question whose solution would determine either the fundamental oneness or the fundamental duality of body and mind; would land us for good either in Monism or Dualism."

Before any advance can be made in the solution of this question, another question must be answered; and that is, whether the popular scientific conception of the essential nature of all physical phenomena is the true one. This view is that matter consists of particles whose function it is to serve as the inert vehicles for motion; that all force is simply the momentum of these particles.

Now it is easy to show that this view of material phenomena is entirely untenable; for at every collision of such particles, in the degree that the momentum of one was less than that of the other, its motion and force would be utterly annihilated. The doctrine of the persistence of force could not hold true one moment if such were the ultimate constitution of matter; neither could action and reaction, which forms the basis of all science, be equal and opposite.

The whole difficulty in the solution of this great problem lies in our erroneous view of the essential nature of physical phenomena. The *reality* of all physical phenomena does not consist in the motions of inert vehicular particles, but it does consist in the tendencies evolved by the collisions of elastic forces acting under the conditions of Space and Time. The principles of physical processes and sentient processes are exactly identical. What the profoundest metaphysical thinkers found true of mental phenomena is equally true of material phenomena. One formula describes all the operations of both: Opposition, Tension, or Tendency, manifested as Motion when released, and as Force against opposing forces. Opposing forces beget all states of tension in matter and all tendencies in mind. The one result of opposition is the evolution of force, and this is but another name for tension or tendency.

When we analyze our conscious impressions of an external environment, we find them to consist wholly of impressions of force, impinging upon our sentient life. When we analyze our internal conscious experience, we find that it consists wholly of forces or tendencies known to us as desires in the various forms which these desires assume. To what other conclusion can we come than that consciousness and force are identical; the difference to our conception being that we think of force as objective and external. Whether we analyze physical or mental phenomena, the ultimate fact in either case is a vibration. And if we think of the fact of vibration, not as a mere motion of inert vehicular particles, but as an interchange in the condition of opposite forces with the resultant change in the force evolved, it is an easy matter to identify it with the simple feeling of touch.

But it may be objected that it is inconceivable that the qualities of our higher consciousness could be a result of the collocations and complications of simpler vibrations; but it is no more inconceivable than that a succession of sounds which, heard in succession, separately, give us the sense of mere noise, should, when heard in combination, give to our sense the entirely new quality of musical tone; and it is equally conceivable that other and greater combinations and collocations of simpler vibrations, should constitute all the various qualities, emotional and intellectual, sensed in our conscious experience.

Like all other processes, our sentence is the correlation of opposite forces or tendencies; and the emotions and the intellect are the exact opposites of each other in their operation. The former is the resultant of synthesis, the latter of analysis. Hence no analytical process of the human mind could ever give to our consciousness the qualities resulting from the collocations of these vibrations of sense, because it is the office of the intellectual process to separate and analyze; and as separation in the vibrations constituting musical tones would give to our sense none of the qualities of musical tones, so a mental analysis of the vibrations whose combinations constitute our conscious experience never could impart to our consciousness the qualities resulting from their collocations.

FRANKLIN SMITH.

BOOK NOTICES.

We have received from the Rev. Leicester A. Sawyer the following parts of his publication *The Bible Analyzed, Translated, and Accompanied with Critical Studies*, (namely, "Early Genera-

tions," "Abraham and the Hebrews in Egypt," "Job," "Esther and the Song of Songs," "Isaiah," "Daniel," "Gospel according to John," and "Revelation of John"). Mr. Sawyer's standpoint may be gathered from his remark that the Abrahamic covenants "are among the most extraordinary and successful impositions ever devised." He accepts the "Exodus" as a fact and identifies the Hebrew with the Hyksos of Manetho, but the production of the Pentateuch in nearly its completed form, was, as shown by its language, a possibility in 623 and down to 300 B. C., but an impossibility in the time of Moses.

The September number of *Home and Society* by Mrs. Agnes Leonard Hill contains chatty articles on various subjects coming within the title of the Journal, for treating of which Mrs. Hill is well qualified by experience. Her remarks on the importance of teaching morals and manners in the public schools are good and deserving of serious consideration. (Chicago: A. L. Hill & Co.)

La Vérité Philosophique. Trois. An. No. 6, July 13th, 1890. The principle articles in the present number of this anti-clerical paper deal with the questions of the reconstruction of Society on the basis of scientific truth and of the admission of women as members of the order of Free-Masons. (C. Cilwa, 28 Rue du Mont-Thabor, Paris.)

The following pamphlets have also been forwarded to us:

On the Relation between Natural Science and Ontology, by G. Johnstone Stoney, M. A., D. Sc., F. R. S. A paper read before the Royal Dublin Society developing a nominal hypothesis of the Universe, with diagrammatic interpretations. (Dublin: University Press, 1890.)

The Union-State. By John C. Hurd, LL. D. An extended letter to a States-Rights friend, denying the right of State-Secession, on the historical ground that the very existence of South Carolina and other Seceding States as holders of political power had always depended on their voluntary continuation as members of the Union-State (New York: D. Van Nostrand Company, 1890.)

Independence. Stanzas by G. Th. Mejdell. This opusculum is written by a Swede who, having resolved to make English the vehicle of his thoughts, began four years ago to teach himself the language. The result may be judged of by the following Stanza which expresses the final thought. "If our existence be a mistake, and the performance a bungle to the core—the responsibility first and last rests with those who in recklessness conjured us up from the Nirvana." Mr. Mejdell's teaching is that an individuality is but a phase, "In new species resuscitating the soul and essence of old ones—it is thus that nature has worked out the problem of Immortality." (Christiana: Alb. Cammermeyer, 1890.)

Spiritualized Happiness-Theory; or, New Utilitarianism. By W. D. Lighthall, M. A., B. C. L. The preface of this publication states that it is a brief systematization of a theory of which notes had been previously published, and was delivered as a lecture before the Farmington School of Philosophy. The theory results from an examination of the Ethical System of the late Thomas Hill Green, in relation to Utilitarianism, and is supposed "to reconcile the contentions of both Kantian and Hedonistic argument." This theory is stated as follows:

That there is a mysterious underlying Power at the base of all conscious nature and also, apparently, of all unconscious nature; of which, Evolution, "regarded as one fact with Willing," is the manner of action.

That a purposiveness, of which our individual purposivenesses are revealed and specialized segments, exists and works through the Universe, and is characteristic, among others, of that Power.

That the phenomena of the Ethical sphere in and through us, are part of that Power's Universal action.

That its essential object of action is *pleasure* (including avoid-

ance of pain). Its guiding principle is the greatest happiness of the whole. It is itself the basis of that principle. (Montreal: "Witness" Printing House. 1890.)

Customs of Courtesy. By Garrick Mallory. The author gives many curious instances of modes of salutation and ceremonial customs. Salutation was once a serious waste of time, and it is now a mere formula which is "the best mark of real culture, its absence characterizing the savage or the boor."

Substance of the Work entitled Fruits and Farinae the proper food of Man. By the late John Smith, of Malton. Sixth Edition, 1889. We have received from the English Vegetarian Society, whose headquarters are at Manchester, a copy of this reprint and of the eighth edition of "The Vegetarian's Dietary" with a large number of pamphlets and leaflets, which show the activity of the Vegetarian Society and furnish evidence of the progress which is being made by its views.

Practical Sanitary and Economic Cooking adapted to Persons of Moderate and Small Means. By Mrs. Mary Hinman Abel. Published by the American Public Health Association, 1890. This is one of the Lomb Prize Essays for 1888, and is the outcome of the fifth prize offered by Mr. Henry Lomb, of Rochester, N. Y., as we are told by the preface, "for the noble purpose of ameliorating, in some degree, the hardships which befall mankind in the tireless struggle for existence." The value of this little work, the character of which is denoted by the inscription "The five food principles, illustrated by practical recipes," is much added to by a series of bills of fare made out for a family of six persons.

The July-August number of *Mélusine*, the excellent French Journal of Mythology and Folk-Lore, contains a continuation of the article by M. Tuchmann on the curious and interesting subject of *Fascination*, or, "The Evil Eye," treating of the means to acquire the power of fascination. In a note M. Tuchmann states, in reply to an inquiry by Mr. Alfred Nutt in the "Folk-Lore Journal," that his conclusions will show the connection of a great many of the phenomena of fascination with those of magnetism and hypnotism, and establish the affiliation of the phases through which the question of the power attributed to the will has passed.—The leading article is a review of *Les Chants Populaires du Péninsule*, by M. Gaston, Paris. To show the wide ground occupied by *Mélusine* we may add that it gives an interesting note on "Irish prognostications from the howling of dogs."

The A. M. E. Church Review, Vol. 7, No. 1, July, 1890. This Review is edited by Dr. L. J. Coppin and is very creditable to the religious community of which it is the organ. The present number contains among other articles an account by Mr. T. Thomas Fortune of the origin of the Afro-American League, the objects of which are "to encourage state and local leagues in their efforts to break down color bars, and in obtaining for the Afro-American an equal chance with others in the avocations of life," and for securing the full privileges of citizenship. The subject of the education of the Negro, is dealt with by Mr. S. F. Williams who points out that the great need of the hour is technical education. He declares that the introduction of manual labor in the curriculum of only one school in each section of the Southern states would teach the Negro the dignity of labor and "dissipate that eternal bug-bear of race war." The Editor of the Journal gives statistics of the educational work done by the African Methodist Episcopal Church, which show that it has established twenty one schools, having seventy three professors and 2,172 students. The schools are supported chiefly by funds given in small amounts by men engaged in unskilled labor. Wilberforce University near Xenia, Ohio, is the mother school, and graduates from there "have gone out and engaged in their various callings with commendable success." (Philadelphia: The Publishing House of African M. E. Church.)

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THE ADVENTURES OF TWO HYMNS

"NEARER MY GOD, TO THEE," AND "LEAD, KINDLY LIGHT."

BY MONCURE D. CONWAY.

PROFESSOR NEWMAN once expressed the opinion, that if theologians had been compelled to set forth their doctrines in the form of poetry, there would have been no controversies. This sentiment, which I am quoting from memory, has a notable illustration in the history of his famous brother's hymn, "Lead, kindly Light." It is probable that nine-tenths of the people who have recently been manifesting homage and affection for the dead Cardinal knew him only by this hymn. On the Sunday after his death it was sung in many English chapels and churches,—all protestant, for it is not in any Catholic hymn-book. When it was written John Henry Newman was a clergyman of the Church of England. In his 31st year (1832) he had just finished his "History of the Arians," with its fierce diatribes against all Liberalism, and went for a tour in the South. "It was the success of the Liberal cause which fretted me inwardly. I became fierce against its instruments and its manifestations. A French vessel was at Algiers; I would not even look at the tricolor. On my return, though forced to stop a day in Paris, I kept indoors the whole time, and all that I saw of that beautiful city was what I saw from the Diligence." At this time he had in his pocket the tender hymn he had written on the journey. He had been seized with fever in Sicily, and his one nurse—a monk—thought he would die; but he said, "I shall not die; I have a work to do in England." He recovered sufficiently to resume his journey, and at Palermo took an orange boat bound for Marseilles. They were becalmed a whole week. He wrote verses night and day during the voyage, among them this little poem,—for it does not appear that he thought of it as a hymn. As the hymn has been a good deal altered, it may be well enough to print it here as it was written.

"Lead, kindly Light, amid the encircling gloom,
Lead Thou me on;
The night is dark, and I am far from home;
Lead Thou me on.
Keep Thou my feet; I do not ask to see
The distant scene,—one step enough for me.
I was not ever thus, nor prayed that Thou
Shouldst lead me on;
I loved to choose and see my path; but now
Lead Thou me on.

I loved the garish day, and spite of fears,
Pride ruled my will; remember not past years.

So long thy power hath blest me, sure it still
Will lead me on
O'er moor and fen, o'er crag and torrent, till
The night is gone;
And with the morn those angel faces smile
Which I have loved long since and lost awhile."

The verses first appeared in the *British Magazine*, and afterwards in *Lyra Apostolica* (1836), entitled "The Pillar and the Cloud," and with the note "At sea, June 16th, 1833." (Twenty years later it appeared in his "Verses on Various Occasions," entitled "Grace of Congruity,"—whatever that may mean.) It is one of the highest qualities of a good hymn that many various hearts find in it what the author never consciously put there. Newman appears to have been puzzled about this hymn. "For years I must have had something of an habitual notion, though it was latent and had never led me to distrust my own convictions, that my mind had not found its ultimate rest, and that in some sense or other I was on a journey." In January 1879 Mr. Greenhill asked him the meaning of the last two lines, and he answered rather impatiently that he was not "bound to remember [his] own meaning, whatever it was, at the end of almost fifty years." "There must be a statute of limitation for writers of verse, or it would be quite a tyranny if, in an art which is the expression not of truth but of imagination and sentiment, one were obliged to be ready for examination on the transient state of mind which came upon one when home-sick, or sea-sick, or in any other way sensitive or excited." It is droll to think, that sea-sickness may have had something to do with the pathos which has been so widely spiritualized.

Although the hymn was written by a protestant clergyman the Catholic soul finds its sentiment therein. In 1875 Lady Chatterton became a Catholic and wrote to tell Father Newman how the hymn had helped her in her time of mental struggle, when she was wont to repeat it during "the dark and painful nights." And while the hymn was making Lady Chatterton a Catholic, James Martineau was putting it into his new hymn-book for the consolation of Unitarians. Nay we had been singing two stanzas of it since 1873 for the encouragement of freethinkers in our South Place Free Religious Society.

So far as I can discover "Lead, Kindly Light"

owes its first currency as a hymn to that Liberalism which its author so abhorred. Its first appearance as such seems to have been in "Hymns of the Spirit," collected by Samuel Longfellow and Samuel Johnson, published in Boston, January, 1864. Longfellow and Johnson, as is well known, represented advanced theistic views. In England its first appearance as a hymn was in "Hymns Ancient and Modern" in the edition of 1867. In 1870 it appeared in the "Church and Home Metrical Psalter." In "Hymns of the Spirit" it was weakened by two gratuitous alterations. Instead of "I loved the garish day" we find "I loved day's dazzling light;" and instead of "O'er moor and fen, o'er crag and torrent" we have "Through dreary doubt, through pain and sorrow." In the "Church and Home Metrical Psalter" we have "Lead, Saviour, lead;" also "I loved the glare of day," and "O'er dale and hill, o'er crag and torrent." In several English books we have "One step's enough for me." But the worst offense was committed by the present Bishop of Exeter, who in his "Hymnal Companion" added:

"Meantime, along the narrow, rugged path
Myself hast trod,
Lead, Saviour, lead me home in child-like faith,
Home to my God,
To rest for ever after earthly strife
In the calm light of everlasting life."

When we were compiling our "Hymns and Anthems" at South Place, in 1873, I concluded to drop the second stanza, as we there still "loved to choose and see" our path, loved the day, and had no "fears." But the stanzas retained were as Newman wrote them.

If the anti-liberal Churchman thus gave liberals one of their favorite hymns, a liberal has given the churches one of their most beloved hymns. "Nearer my God, to Thee" was written by a lady who was not even a Christian, for the South Place Society, where it was sung for nearly a generation before the orthodox ever heard of it. The writer of that hymn, Mrs. Sarah Flower Adams, was the daughter of Benjamin Flower, a leading radical of the revolutionary era, and author of an able book on the "French Constitution" (1792). He was in Paris at the breaking out of the French Revolution, and his paper, the *Cambridge Intelligencer*, defended Thomas Paine and republicanism, with such courage that he was sent to prison. There a beautiful lady of high position, Miss Gould, a friend of Priestley, visited him (therefore suffering social martyrdom) and on his release they were married. Of their two daughters, Sarah wrote hymns for South Place, then under the eloquent ministry of W. J. Fox, M. P., and Eliza set them to music. Robert Browning, who was the friend of these sisters, told me that Eliza had "real genius for music." Her compositions are now familiar in many churches. In 1834 Sarah married William Brydges Adams, a distin-

guished inventor and engineer. They all belonged to the extreme radical rationalistic movement in London, and were leaders in it. Mrs. Adams wrote a large poem "Vivia Perpetua," which was much admired. She died in 1848, little dreaming that her hymn, "Nearer my God, to Thee" would one day be sung in every part of English-speaking Christendom.

Some years ago, when there was a Conference of Christian churches in Washington City, the Unitarian Minister (Rev. Dr. Shippen) was excluded in a rather marked way. Being in Washington I attended one or two of the meetings, and the only instance in which any religious emotion was manifested was when a blind preacher, Rev. Thane Miller, asked the assembly to rise and sing, "Nearer my God, to Thee." Dr. Shippen was far less unorthodox than the author of that hymn which brought those zealots their only animating breath and sunshine. The emotions and sentiments of the orthodox are their own, are real; their dogmas a sort of phonography, a repetition of something put into them by those whose ideas and phrases are freely uttered merely because they are not comprehended.

As we have seen that the Bishop of Exeter was moved to supply Father Newman's hymn with something about the Savior, similar supplements have been made to "Nearer my God, to Thee." In both cases, however, the additions have only revealed the prosaic mind of the dogmatist, and they have fallen away by their own leaden weight. It remains therefore a significant religious phenomenon that rationalists are singing with fervor the hymn of a Churchman on his way to Rome, and Churchmen are singing with ardor the hymn of a rationalist. Neither of the hymns has any allusion to Christ; they alike represent the human spirit communing with its ideal without veil or medium. Their popularity is significant of a new era in which historic religion is passing out of the mind of the people, and religion becoming a matter of the inner "Light," of aspiration, and of a transcendent sentiment. The great stony mass of dogmas would appear to be dissolving into a sort of pantheistic nebula, possibly to develop new orbs in place of the old ones which shine no more in the firmament of faith. If Christendom be judged rather by what it sings than what it says, a dismal night is far spent, a new day is at hand. But it is by no means yet certain that this new day may not witness a mere revival, albeit in more scientific form, of that ancient deism which has always been a barren speculation, and from which the human heart has again and again sought refuge in some warm-hearted humanity, like that of Buddha and of Jesus. It will depend on the moral earnestness of those who are free, to see that humanity shall no more slide a step backward for every one taken in advance.

AMERICA'S EXPERIENCE OF LOW TARIFFS.

BY F. M. HOLLAND.

CONGRESS has concluded to increase the tax on wool, and augment the tariff generally. Our protectionists still march up the height, waving the banner marked "Excelsior," with as sublime an indifference to consequences as that of Longfellow's hero, and insist that their path up the mountain is the only way by which our country can escape from having her markets glutted with the products of pauper labor, her factories shut up, and her laborers obliged to beg their bread. All these evils are predicted as certain to follow any reduction of our tariff; and it is high time to consider what was the actual effect of the reductions voted in 1833, 1846, and 1857.

The average rate of our duties will be more than one-half as great as the value of articles taxed, according to the new tariff. It was less than ten per cent. a century ago, and it had risen to only forty-one, when the act of 1833, which put coarse wool on the free list, established a system of gradual reduction, to be continued until there should be no duty left higher than twenty per cent. Before this point was reached, however, there was a deficit; and in 1842 the average of the rates was fixed at thirty-three per cent., where it remained until 1846. The tariff was then lowered to twenty-five per cent.; it was again reduced in 1857 to twenty per cent.; and this last act was passed with the general approval of the members of both parties. Thus from 1833 to 1861, when war broke out and the revenue had to be increased, our system was what our protectionists denounce as free trade.

Soon after it was introduced, a French traveler, Chevalier, noticed "the aspect of universal prosperity," in a land where "nothing is easier than to live by labor and to live well." All the men and women he met in the streets of New York were well dressed; and a German philanthropist, Dr. Julius, could find only solitary and transitory cases of pauperism. Miss Martineau, who met most of our leading men, in 1834, 1835, and 1836, found the advantage of the lower tariff "very generally acknowledged." Lyell, the geologist, says: "We have met with no beggars, witnessed no signs of want, but seen everywhere the most unequivocal proofs of prosperity and rapid progress." It was at this time that Dickens praised the healthy faces and neat dresses of the factory girls, who began in 1840 to publish the *Lowell Offering*, in a city from which the traveler might, says Lyell, "go away with the idea that he had been seeing a set of gentlemen and ladies playing at factory for their own amusement."

Lowell, Pittsburg, and other manufacturing centres now increased rapidly in population; and there was a gain of fifty per cent., not only in our number of cotton factories but in the value of our export of manu-

factures of all kinds between 1830 and 1840. In 1842 our country had seven times as many miles of railroads as she had in 1833; and Pennsylvania produced more than four times as much iron as in 1830.

Our statistics become very full and significant, as we reach 1860, when our factories made nearly ten times as many dollars' worth of goods as in 1830, and sold nearly four times as many dollars' worth abroad as in 1846, while the total value of imports and exports had increased more than one hundred and ninety-six per cent. since 1845. Comparing the figures for 1850 and 1860 in the Census tables and similar authorities, I get these results. The capital invested in factories nearly doubled; and so did the value of manufactures, the gain in both cases being more than twice as great as in population. The same is true of the value of the cotton cloth; and there were also decided gains in pig iron, woolen goods, steam-engines and other machinery, boots and shoes, leather, clothing and furniture. There was an increase of one hundred and seventy per cent. in value of coal, and one hundred and sixty in that of agricultural implements; while that in population was less than thirty-six; and the manufacture of these implements had grown nowhere so rapidly as on the upper Mississippi and the great lakes. "Without any special stimulus to growth," says the Census Report for 1860, "the manufactures of the United States had nevertheless been augmented, diversified, and perfected, in nearly every branch." There were more than five times as many patents issued that year as in 1850; and the sewing machine was among the new inventions. The increase in number of operatives was forty-six per cent., nearly one-third more rapid than that in population; and the average amount of wages, per operative, advanced nearly twenty per cent., despite the enormous immigration from Europe. The value of both our imports and exports more than doubled, as also did the wealth of the nation; the valuation of Illinois, Wisconsin, and Michigan advanced three or four times as fast as their population; and the factories of Cook County increased the value of their products six fold, while the wealth of Chicago increased four fold. The gain in wealth throughout the Eastern States, though less rapid than in the West, everywhere outstripped the advance in population; and the average amount of money in savings' banks in Massachusetts, per inhabitant, increased one hundred and fifty nine per cent. The total value of farms more than doubled, having increased nearly three times as fast as the number of inhabitants; and there were corresponding gains in various kinds of agricultural products. A yet more striking contrast with the present state of things may be found in the fact that our shipping nearly doubled its tonnage between 1850 and 1860.

Similar results followed the establishment of free trade in England, where the operatives had been wretchedly poor, and where the purchasing power of their daily wages has doubled, while the working classes enjoy more comforts and luxuries than they ever did before, or do now under protection in Europe. Free competition has enabled New South Wales to pay more for her day of eight hours than we do for ten, considering the price of clothing, etc.; and her bricklayers have recently, by working over time, earned 15s. 6d. a day, which is worth more than \$4 here. Her factories have multiplied steadily, in spite of having to compete against "pauper labor," and are now, as Dilke says, in *Problems of Greater Britain*, more prosperous than those of her protectionist neighbor, Victoria. All this is just what we ought to expect; for no country can import largely from her neighbors, unless they will take her products in exchange; and they will take nothing from her which could be produced more cheaply elsewhere. Larger imports require larger exports; and larger exports are impossible without greater activity in those industries which are best able to increase the wealth of the nation, and which can contribute most largely to its prosperity. Greater activity in these industries means greater demand for labor; and that means higher wages. Between 1845 and 1860 our country increased her total amount of imports and exports more than twice as rapidly as she has done since; and this increase was accompanied with great activity of her factories in selling goods abroad as well as at home. In order to compete so successfully with Europe, we were obliged to turn our main attention to the most profitable branches of manufacturing, as well as of farming; and we developed these in preference to industries which could not have been carried on under such low tariffs. Thus we followed such a course as enabled the employer to pay high wages, while it enabled the people to buy the necessities of life at prices which had not been raised by any taxes imposed simply for the purpose of subsidizing unremunerative enterprises. Those of our manufacturing industries which have really proved most valuable, prospered better under the low tariffs of 1846 and 1857, than they have done since, or are likely to again without free raw materials. Low tariffs and large imports mean not only low prices, but also large exports of goods made by factories which pay high wages.

THE BASIS OF ETHICS AND THE LEADING PRINCIPLE IN ETHICS.

MR. SALTER says that I confound two questions:

"[First,] what is the true world-conception, upon which every special science may, in a broad and rather loose sense, be said to be based; and secondly, what is the ultimate principle in ethics itself? The second question might be more distinctly stated as

follows: Not what is the *basis* of ethics, in the sense of "a philosophical view back" of it (a theology or philosophy), but what is the basic principle *in* ethics? Ethics, in the popular sense, being a system of rules for conduct, it is necessary, if it is to be treated scientifically, that there should be some supreme rule, by their agreement or disagreement with which all lesser rules should be judged."

It appears to me that I do not confound these two questions; yet I am confident that I see their intimate connection. Our proposition is that the leading* principle *in* ethics must be derived from the philosophical view back of it. The world-conception a man has, can alone give character to the principle *in* his ethics. Without any world-conception we can have no ethics (i. e., ethics in the highest sense of the word). We may act morally like dreamers or somnambulists, but our ethics would in that case be a mere moral instinct without any rational insight into its *raison d'être*.

If there is any difference between morality and ethics, it is this, that morality is the habit of acting in a certain way which, according to our view of the world we live in, is considered as good; while ethics (the science of morality) is the conscious recognition of the reasons which make an action good or bad. A bear that sacrifices her life in the defense of her cubs acts morally according to our view; but her action is mainly the result of impulse. The morality of animals appears almost as a blind reflex action when compared to the conscious self-sacrifice of an ethical man who acts deliberately, knowing the reason why.

If I rightly understand Mr. Salter's proposition, the Societies for Ethical Culture should according to my terminology be called "Societies for Moral culture."

Mr. Salter indeed emphasises this idea in the chapter of his *Ethical Religion* to which he calls my attention. He says:

"The basis of our movement is not a theory of morality, but morality itself." (p. 302.)

Is not Mr. Salter's meaning this? "Practical morality must be the *object* (and not the *basis*) of the ethical movement. Theories have no value unless they are made practical by application." If this is Mr. Salter's theory we agree with him, but we should add: "No practical work can efficiently be done without a theory. The result of the work will greatly depend upon having the right theory."

In another passage Mr. Salter says:

"We do not propound new views of the Universe. We wish rather a new sense of duty." (p. 292.)

Are not Christian and Jewish preachers constantly at work to make our sense of duty more sensitive? If that is Mr. Salter's meaning, he does the same work that all honest clergymen are doing. David cried for

*The word "leading" appears to me preferable to "basic" in this connection.

the renewal of a right spirit within him (Psalm 111, 10), and Ezekiel described his work with the words:

"A new heart also will I give you and a new spirit will I put within you. (36, 26.)

For preaching "a new sense of duty" in the sense of an unceasing moral progress and of a constant renewal of moral purposes, there would have been no need of leaving the churches. Yet if by a new sense of duty is meant an entirely new morality, different in kind from the old morality, how can it be proposed unless the basis of ethics be radically changed at the same time, or at least differently applied? In no case can we ignore it.

I do not doubt but that humanity has made a great moral progress, I do not doubt but that the average morality among our grandchildren will be higher than is the average morality of the present age, but I am also firmly confident that we shall have to preach the same morality over again to later generations. The substance of our morality will not be changed. That which must be changed is our conception of morality, in so far as it is to be based not upon a supernatural authority, but upon the authority of natural laws. We have to free ourselves from the ethics of supernaturalism, we must overcome the mysticism of the intuitionists' view; we must be led out into clearness. If we understand morality, its natural conditions, its growth and purpose, we shall the better be prepared to obey the moral commands.

The most important moral rules are not to be altered. So far as I can see, some of them will be altered as little as our arithmetical tables can be changed. Our sense of duty may become more enlightened and more sensitive, but its contents will remain about the same. If we read the properly moral injunctions of Confucius, or of Epictetus and Marcus Aurelius, or of the Hebrew prophets, are they not, aside from a few odd expressions due to the speech of their time or to awkward translation, quite as modern as the sermons of a lecturer of the societies for ethical culture? There is the same earnestness, the same impressiveness, the personal tone of fatherly instruction, the appeal to the noblest motives of the understanding and the heart.

How is it, that these old books have remained so modern? Because the subject of their exhortations is ever new, and the same things have to be repeated again to every generation.

Mr. Salter says that the ethical movement is not devoted to antisupernaturalism. Supernaturalists not only believe in a supernatural deity, they also base their ethics on the revelation of a transcendent God. Every attempt at humanizing ethics must from the standpoint of supernaturalism be considered as a superstitious presumption, and I have strong doubts whether any serious believer in supernaturalism will

ever join an ethical society. One kind of supernaturalism only can be imagined to be compatible with the views propounded by the ethical lecturers, viz., that in which the idea of God has no practical meaning. He alone, to whom his belief in supernaturalism is ethically indifferent, will agree with Mr. Salter that the ethical societies are not devoted to antisupernaturalism.

Mr. Salter looks upon supernaturalism, and indeed upon any other basis of ethics not as a real basis, but as a mere interpretation of ethics. He speaks of first principles in ethics, but how does he come into their possession, unless he derives them, if not consciously, then unconsciously, from his conception of the world? *The leading principle of ethics must always be the expression of a conception of the world.* This is the point Mr. Salter does not recognize. If he recognized it, he would not so repeatedly complain about a lack of clearness as to what a basis of ethics means.

FACTS, HOW THEY TEACH.

It has been emphasized in the three lectures on The Ethical Problem that ethics must be based on facts. With reference to this principle Mr. Salter says:

"What then is the scientific world-conception, the true basis of ethics? I confess to having been completely taken aback, when as I read on I discovered that Dr. Carus declined to answer the question, contenting himself with vaguely saying that the true philosophy will be one which is in accordance with facts, which seems equivalent to saying that the scientific system will be a scientific system."

The principle that the new ethics must be based on facts, is certainly so obvious that it must appear as a self-evident redundant truism. So all the most complex arithmetical theories may be shown to be mere equations, they are tautologies which will appear to every one who understands them, just as self-evident as the equation $1+1=2$. And yet it is sometimes quite difficult to analyze and understand such a simple proposition as that ethics must be based on facts.

Although Mr. Salter considers the proposition that "the scientific world-conception, the true basis of ethics," must be based on facts as sufficiently obvious as to be tautological, he makes objection to it as being something in the air. He says:

"It has long been plain to me that resting ethics on our matter-of-fact wishes or instincts is not establishing ethics, but undermining it and leaving it a something 'in the air.'"

Does Mr. Salter mean that "basing ethics on facts" denotes an exact imitation of the facts we experience? Does he think, that if we witness a murder, we are thereby invited to commit a murder also?

I said (as Mr. Salter declares "in one clear-sighted passage") that

"Ethics is not ready made, it is not the one or the other fact among all the realities of the universe. Ethics is our attitude toward the facts of reality. (The Ethical Problem, p. 18.)

With reference to this statement Mr. Salter says:

"The latter remark seems to imply that the same facts may be looked at from different attitudes; if so how are the facts themselves to decide which attitude we shall take?"

Certainly we can take different attitudes toward facts. But the proper attitude toward facts can be learned from the facts alone. Facts teach us for instance the laws of health. Mr. Salter suggests that any one might say, "I do not care about my health." But in that case the laws of health are not (as Mr. Salter declares,) meaningless to him. He will soon find out the meaning of the laws of health. Facts will teach him to care for his health, and if he does not, nature will soon deprive him of health and life.

I happen to know a sad case of my own experience. A strong and healthy young man, a jovial companion and of social habits, defied the laws of health, and could do so for some time on account of his strength and youth. I plainly remember that he once said to me almost in the same words in which Mr. Salter puts it: "I do not care about the laws of health, nor do I care for a long life. It is not pleasant to grow so very old. I would rather live so as to please myself, even though my life be shorter by ten years." A year elapsed and he fell sick never to recover again. His parents buried him in the bloom of his life.

Facts are not mute; they teach us. Our knowledge of facts is called experience, and from knowledge of facts alone the principles of action can be derived.

Mr. Salter is far from basing ethics upon the solid ground of facts. He combines with ethics the idea that it must be something absolute. In his lecture, "Is There Anything Absolute About Morality?" he says:

"If by morality is meant only the actual conduct of men, we have plainly to negative our question, and say there is nothing absolute about morality, since the conduct of men has been after any but a fixed, unvarying type." (pp. 83, 84.)

Mr. Salter finds the absolute of morality in conscience. The commands of conscience, Mr. Salter declares, are absolute. But have there not been erring consciences which prove that conscience is anything but an absolute authority? Mr. Salter evades the difficulty by declaring that the inquisitors and other men who committed crimes in perfect faith that they were doing a good work, had no conscience at all. Concerning the barbarous treatment of the Canaanites, he goes so far as to maintain:

"I doubt if Moses, or one of the heroes of the Israelitish legend ever seriously asked himself, What is right?" (p. 97.)

In a certain sense there is something absolute in ethics, although we should not call it "absolute." We

should prefer to say, there is something objective in ethics; and the objective element in ethics makes it possible for ethics to become a science and for morality to be based on science i. e., a systematized statement of facts.

THE MORAL LAW AND MORAL RULES.

For the sake of clearness let us distinguish between the moral law and moral rules. By the moral law we understand a law of nature which is as rigid and objective as are all other laws of nature. By moral rules we understand the formulation of certain commands, based upon a more or less comprehensive knowledge of the moral law.

The moral law operates in nature with the same unflinching exactness as does, for instance, the law of gravitation. If a stone is without support, it falls to the ground whether we wish it to fall or not. If the members of a society infringe upon the moral law, they will reap the evils consequent thereupon. The course of events follows with the same necessity in the one case as in the other, in the realms of inorganic as well as of organized nature.

Organized nature develops feeling, and feeling develops mind. The acts of beings endowed with mind take place with the same necessity in a given situation, as does the fall of a stone under certain circumstances. But it must not be forgotten that, aside from the intensity of impulsive force in the different inclinations for this or that course of action, the intelligence of beings endowed with mind has become the main factor in the determination of their acts. A cannon ball, shot under exactly the same circumstances, will take exactly the same course, and a man of a certain character will be guided by the same motives in exactly the same way. But we must bear in mind, that if the same man happens to come a second time into the same situation, he is no longer the same man. The former experience has modified his character, be it ever so little. He has profited by that experience either for a repetition or an avoidance of the act. And the more he has profited by experience, the freer he will become, i. e., the less will he be dependent upon the situation, and the more decisive will be his intelligence in determining his will.

The method of intelligent action is that of formulating knowledge of natural laws in the shape of commands. All knowledge is a description or systematized formulation of natural facts; and all intelligent action is an application of knowledge. If we pursue certain purposes, how can we, for our own use as well as for the education of others, state our knowledge better than in the shape of rules? The rules of architecture help us in the construction of a house. But these rules of architecture are nothing but the knowledge

of building materials and of the methods of combining them to provide people with dwellings. The rules of morality help us in building up our lives, so that our individual existence is not antagonistic to the growth of society; but it furthers the development of humanity in the sphere of our activity, and will after our death continue to be a blessing unto mankind. But the rules of morality are based upon the moral law not otherwise than the rules of architecture are derived from our knowledge of natural facts. The rules we set up, may be right or wrong, they can show a greater or smaller comprehension of the nature of things, at any rate they are ultimately based upon the facts of nature, and alone by an investigation of the facts of nature can we become assured of their truth.

P. C.

CURRENT TOPICS.

The newspapers are just now discussing the "incivility" of the sales gentleman and sales ladies, who are supposed to wait on customers at the retail stores. The public mind has become so excited on the subject, that an enterprising newspaper offers a gold medal to the most polite and accommodating clerk in Chicago; the winner to be chosen by the patrons of the paper;—no premium is offered for the most polite and considerate customer—an oversight which will be corrected in due time. The ballots are printed in the newspaper itself, from which they must be cut, the right of suffrage being measured by the number of papers bought; one paper, one vote; ten papers, ten votes; and so on. By this plan, should candidates and their partisans become excited in the contest, and rivalry be stimulated as it ought to be, the paper will recover the cost of the medal, and something more. The advantage of this over the ordinary scheme of balloting, and over the Australian method also, is that "repeating" is not only permitted but invited, and each partisan can vote as early and as often as he pleases. The infirmity of the device is that merit yields to money; which, indeed, may be said about some other elections of greater consequence. The plan is borrowed from the Church Fair system of elections, where the price of ballots being fixed at ten cents each, a prize is offered to the most popular sewing machine, the rival sewing machine agents being safely relied on to do enough repeating to buy an organ, or put a steeple on the church.

Civility in clerks is worthy a gold medal; but will not the generous donor offer another and a larger medal for truthfulness and honesty? Fair dealing is more needed than fair speaking. Recently I sent for an article of which there were three different kinds or qualities in the store. The price being asked, the bland and polished clerk replied, "thirty-five, forty-five, and fifty-five cents." The messenger bought the dearest. Next day I went to the same store for a like article, and the price of it according to the same fair-spoken salesman, who burst into a radiant glow of civility, was "forty, fifty, and sixty cents." In answer to a question, he remarked without an impediment in his voice, or a quiver in his eyelid, that this had been the price all through the present season. "Give me those at fifty cents," I said, and this he courteously did, after carefully wrapping the merchandise in paper. When I reached home I saw by the brand on the can that he had given me the forty cent package for fifty cents, thus making me the victim of a double cheat. His employer was present all the time, and saw with evident approval this ingenious "business operation." Some day when that young man commits embezzle-

ment, and robs the firm, that same employer will express profound surprise, and say, "I wouldn't have believed it; I had implicit confidence in his honesty." There are thousands of clerks in Chicago, who would lose their situations, were they suspected of honesty—to customers.

Listening at the house of a friend to the conversation of a phonograph, I heard with becoming awe its candid statement of what each member of the company there present had said or sung. Surely, of all the inventions that ever sprang from the brain of man, this is the miracle. True as the face in the looking glass was the voice in the phonograph. Not a note nor a tone was lost. Its grammar, dialect, and pronunciation were exact and faithful imitations. Even the photograph has its favorites, and will sometimes flatter; but the phonograph is impartial, and flatters none. It will catch the most delicate vibration of the voice, and return it on demand, without revising, correcting, or suppressing the faintest whisper of a word. Although we may not like a witness which tells the world exactly what we say, we must respect its truth and honesty. It can be depended on; and that is a great deal in this false and over-civilized age. What can we think of a phonograph which works in the inverse way, and condescends to the ignominious duty of repeating what we never said, useful as its deceit may be to us in times and seasons when we need the help of ideas? Figuratively speaking, such a phonograph is in operation at Washington, in the form of a comic paper called the *Congressional Record*. This publication is maintained by the government at a cost of ever so much a year; and its duty is to corrupt history, to repeat what was not said, and to certify to that which was not done.

The theory of the *Record* is that it records, but in practice it obliterates. It pretends to publish what was said and done in Congress, but it suppresses the reality in both cases, and makes fiction serve as fact. It is the National conjurer exorcising substance into nothingness, an official *suppression veri*, the "affidavit man" of Congress. In the regular army each company of cavalry used to have an "affidavit man" whose duty it was to balance the Captain's quarterly returns, by accounting under oath for any missing property for which the Captain was responsible. He was as great a convenience to captains as the *Record* is to Congressmen. I have known an expert affidavit man account for twenty saddles, thirty blankets, a dozen carbines, and a miscellaneous catalogue of other company property, by one comprehensive and overwhelming oath; and do it just as easily as the *Congressional Record* accounts for a missing speech, "suppressed by order of the House, and sent into annihilation." When a member of Congress makes a speech in the House, the ordinary newspapers publish what he said, while the subsidized *Record* prints whatever he can think of that he did not say. I once knew a little boy, whose plate being absent from the dinner table, rebuked his mother for the omission, and said, "See here, what you didn't do." So the *Congressional Record*, when it prints the speech of the Honorable Member, can present it to him and remark, "See here, what you didn't say."

In a political convention recently held in Chicago, by one of the "two great parties," after a long list of nominations had been made, one of the delegates offered a very proper apology for the nationality of a friend and fellow citizen whose name he desired to "place before the convention" as a candidate for judge. So timid was the delegate, and so abject his excuse, that the convention thought he was about to propose a Chinaman; but instead of that, it appeared that the upstart person who had presumed to ask for a place "on the ticket" was not a Chinaman, but an American, hence the necessity for a suitable apology in presenting his name. "He claims no strength because of his nationality," said the hum-

ble proposer, "but it may be good policy to give the Americans a show." Up to that moment, the selections made had created the impression that the convention was nominating candidates for office in the county of Cork, instead of the county of Cook, and therefore the appearance of an American candidate looked like the intrusion of a foreigner. And even then the main question for consideration was not the character and fitness of the aspirant, but whether or not it would be "good policy" to give the Americans a "show."

* * *

A few evenings ago, the eloquent and popular pastor of the First Presbyterian Church of Chicago, having just returned from his vacation, was honored with a reception at the church parlors. After music, singing, and some pleasant conversation, the returned minister entertained the company with an account of his adventures "up at the lakes," where he had spent the summer. He was justly proud of his luck at fishing. He amused the congregation with wonderful stories about the number and size of the bass, pickerel, and trout which he had coaxed out of the lake into his own basket. His wife also told of her experience with the hook and line, to the great astonishment of a sceptical deacon, who at last remarked, "Madam, your fish stories are very big." Quick as woman's wit came the retort, "They are not so big as the fish stories of the bible, and you believe them." In a moment she had hooked the deacon, and landed him in the basket. He had been too greedy at the bait. *Hæc fabula docet*, that most men, and especially deacons, have two intellects, one for believing, the other for doubting; one for religious, the other for secular uses. This is a great convenience, as the secular intellect would be troublesome in the pulpit or the pews, while the religious intellect would subject its possessor to great imposition if used in worldly affairs.

M. M. TRUMBULL.

BOOK REVIEWS.

STUDIES IN EVOLUTION AND BIOLOGY. By Alice Bodington. London: Elliot Stock, 62 Paternoster Row.

It was not necessary for Mrs. Bodington to offer an apology, if her protest against the stigma supposed to rest upon the scientific writer who is not also an original observer is thus to be interpreted, for presenting this book to the public. She remarks that the fields of physical research are now of such vast extent no specialist has time to give even a general view of what is going on, and she rightly concludes that other competent persons may fitly do what the specialists have not time for. That Mrs. Bodington herself is thus competent is evidenced by the work before us, which treats in a scientific manner of a large number of interesting facts, with many of which the general reader is but slightly acquainted. Thus we have an account of the development of the visual organ, including the *pinna* eye of certain reptiles, with the remark that "Nature was quite prepared to develop eyes upon any part of the body, and has by no means forgotten how to do so still." The chapter on "Micro-Organisms as Parasites" contains much curious information on this subject, particularly relating to the function of the leucocytes, or white blood corpuscles, as destroyers and devourers of foreign particles injurious or unnecessary to the body. Whether this shall be healthy or in a state of disease seems to depend largely on the success of the leucocytes in their attack on intruding bacteria. Mrs. Bodington is a warm admirer of Lamarck, whom she regards as the Galileo of evolution, Darwin being his Newton. She devotes a chapter to Professor Cope's views of "the origin of the fittest," and she adopts his conclusion that the enormous difference between mind in man and in all other animals, is due to the fact "that the acceleration of functions, and the specialization of organs have in man been, not in the direction of improved feet, as in the horse, or of improved

nose, as in the elephant, or in increased muscular strength, as in the lion, but in an improved and increased brain." Mrs. Bodington gives as a frontispiece to her book a representation, after Prof. Cope, of the *Phenacodus primævus*, the supposed typical ancestor of man, monkey, and all hoofed animals. Ω.

LA LEGENDE DE VIRGILE EN BELGIQUE. By J. Stecher. Bruxelles: J. Hayez, 1890.

This memoir is extracted from the *Bulletins de l'Académie royale de Belgique* and reproduces a discourse delivered in the public séance of the Department of Letters of the Royal Academy of Belgium. M. Stecher in his interesting study shows the great and unique influence exercised in Northern Europe during the middle ages by the Latin poet through whose great work legend became history, and the glory of Rome was carried back to a distant antiquity. He traces also the gradual development of the legend of Virgil, who came to be regarded first as a prophet of Christianity, then as "the wise man," and finally as a sorcerer of the darkest hue. This last phase M. Stecher, in opposition to the literary view adopted by Mr. J. S. Tunison, in his *Master Virgil the author of the Æneid, as he seemed in the Middle Ages*, published at Cincinnati, and M. Pitre, affirms was derived from popular stories of the Neapolitans. In the *Geste de Liège* which, according to M. Stecher, was due to the invention of the French physician Jean de Bourgogne, the author of the travels of the false Mande-ville, the legend of Virgil takes a most extravagant form. Finally, in the 16th century the Roman poet becomes merely an accomplice of the devil, as the Faust by whom he was replaced. Ω.

The Origin of Polar Motion, by M. Myerovitch, is the elementary introduction to a larger work of this title, to establish a new theory "by which the polar motion is proven to be the repulsive power of molecules." (Rosenberg Bros., Chicago.)

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A DRAMATIC POEM BY IBSEN.

BY EDNAH D. CHENEY.

(CONCLUDED.)

Nothing can exceed the pathos of the fourth act where the mother mourns for her child on Christmas Eve, and the stern father checks her grief, which is unsuited to the Holy time. He describes to her the terrible storm he has encountered on the water, but she reminds him that it is harder to sit alone at home sleepless and without occupation :

"Think on me, who cannot forget
And should not remember."

Then he tells her how the pain often overcomes him and he longs to throw himself on God's heart as a little child, and Agnes cries

"Oh! see the Father, not the Lord."

But he tells her that his place in the world is the hard struggle to bring men to the knowledge of his stern law.

"But thou canst go to him,
Look into the Father's eyes
Dare, when hard thy bosom aches,
Weary, rest thee in his arms."

And he says she brings this glory and peace to him.

Agnes pours out her longing dreams of her child who is cold without her embrace in his lonely grave. Brandt says it is only the body of her child that lies there, but with saddest moaning she replies :

"Oh! you mock at my sad weeping,
At my sorrow in your hardness,
What you coldly name his body
Ever to me is my child."

She pleads for help, for loving pity, all is too great for her, and the Church oppresses her. He is shocked at her words, but she cannot explain them.

"Voices come from out the distance,
Come and go, one scarcely marks them,
So I feel it all alone
That our church too small has grown."

Brandt takes her words as a literal inspiration calling him to his task of enlarging the church, and blesses her for the guide and help she is to him. Agnes falls into his mood and promises to dry her tears and work with him. She says the house too must be adorned for Christmas, that if God looks into the room, He shall see that they accept the sorrow He has sent. Brandt tenderly prays for her that his own heart's blood may be drained to spare her. They are interrupted in this exquisite interchange of sympathy by the Steward. A long conversation follows which is

full of the keenest satire. In contrast to Brandt's earnest, if visionary spiritual purposes, are the worldly respectable and reasonable plans of the Steward, who accepts poverty as a necessary evil not without its benefits to society, but which requires to be dammed up in institutions. He will build a poor-house, a hospital, a pest-house, and beside it a grand communal festal hall.

Brandt says :

"Ab, Steward, you build like the Deuce,
But it seems to me you overlook one thing."
STEWARD. "The Madhouse?"

The Steward explains his plans, and asks the priest to help him with his influence, but Brandt tells him he too will build a large church.

"Why have you ever seen this one full?"

asks the practical Steward.

"There is not room enough for one poor soul
To lift itself to God."

That is proof enough that we need a mad-house, mutters the Steward to himself, but when he learns that Brandt proposes to build the church with his own inheritance, he is entirely reconciled, and proposes that "we carry out the scheme together."

The Steward says he must go and look after his vagabonds, and explains that he means a band of Gipsies who have come into town, and that Gerd the crazy maiden, is the child of the discarded lover of Brandt's mother, and a woman belonging to this troop. Brandt asks if this soul cannot be saved, but the Steward seems to consider it alike improbable and unimportant. This conversation and the painful fact of Gerd's birth, bring to Brandt terrible questionings of God and Fate and Prayer, and the agony of the child's death comes back to him until he calls aloud :

"Oh! Agnes bring light to the blind,
Light, light, Oh! let it appear."

Agnes comes in with the Christmas lights, and then recalls how a year ago the little one stretched out his hands to them in delight. She then turns to the grave, looking towards it from the window. Brandt bids her close the shutters and dry her tears. He tells her that sacrifice is not complete unless she gives up memory, tears, all that is of the past. Nay, even her heart's blood is in vain if given in tears and not in joy. At last Agnes says :

" Now opens to me like a deep abyss,
The word of Scripture whose ground
I never seized before."
BRANDT. "What word?"
AGNES. "Who sees God, dies."
BRANDT. (Throwing his arms around her.)
"Oh! close
Thine eyes! Hide thyself! See him not!"

As he leaves her alone, she moans out her thoughts in broken sentences, whose tenderness and pathos, the struggle of mother love and obedience to a revered husband, touch the very depths of feeling. At last she goes to the drawers and looks at her child's clothes. Her husband comes back and speaks (lightly).

"Before, behind, above, below,
Always about the one grave."

She takes up the little garments one by one, and they recall the memory of the child in his happy plays. The door opens and a woman in rags, bearing an almost naked child on her arm, enters. It is impossible to condense this scene, every word of which is full of the deepest feeling. The half crazed reckless gipsy and the sorrowing tender saint are strongly contrasted and yet both are true to life. Brandt calls upon Agnes to see her duty and to give the dead child's clothes to this needy sister's baby. She shrinks from it as a sacrilege, yet obeys, and piece by piece gives up the little treasures, but hides in her bosom the little hood which was on his head when she wiped the death-damp from his brow. But Brandt and conscience are relentless and she gives up all. An ecstasy seizes her and she sees the image of her glorified child. Death is the only end of such a struggle, and she welcomes it, but Brandt is overwhelmed at the prospect of losing her. She paints the impossibility of life for her, and bids him choose whether he will hold her here or let her go to the fullness of life. He yields up his will and resigns her to rest. The scene closes with the words:

"Heart, hold fast unto the end,
Victory lies in hardest Duty,
Be thy sacrifice thy choice,
For the lost endures for ever."

FIFTH ACT.

A year and a half later, the new church is built and ready for dedication. The people are decorating it, and a shield with the Pastor's name is to be put up in his honor. While the Schoolmaster and Sacristan are disputing over puzzles, the sound of the organ is heard. It is the Pastor playing, and the men say, "It is as if he wept for wife and child."

When Brandt appears, the people flock around him, and the Provost greets him in laudatory congratulation, but his heart is heavy with unrest and anguish. As they praise the noble temple he says:

"We have got a new lie in place of the old one."

The Provost tells him of the satisfaction of the people in the church, of the golden cup to be presented to him,

and of the cross of knighthood that is to be presented to him. The Provost makes him brilliant offers if he will serve the church, and Brandt's soul is rent with distress at the entire dissonance between his own ideal and the people's thought of the church. He sees that he must give up the church as he has every other thing that he has held dear.

Einar, the former lover of Agnes, now appears, clothed in black and looking wan and meagre, and stops at the sight of Brandt. He announces that he is a ransomed and chosen one of Jesus, and tells how he has been redeemed from a love of pleasure by passing through a long and suffering illness. Since he was cured and saved, he has wandered through the land, first as an apostle of temperance, and now as a missionary. When Brandt asks him if he would not inquire for Agnes he shows great indifference, only asking to know in what frame of mind she died, and when Brandt replies "Trusting only in God," he brutally answers "She is damned."

The Steward comes to tell Brandt that the procession is waiting for him to move, but he refuses to join it. At last he speaks to the people, and tells them how he had believed that he could show them the true God. He had thought that their church was too narrow, and he could enlarge it, but

"Despairing now I ask
What of space is large enough
For the 'All or Nothing'?"

As he describes in startling words his impression of the vanity of their church service, and the shallowness of those who take part in it, the Steward and the Provost each see the other's likeness in his picture, but not their own.

The Provost cries:

"Hear him not, he is no Christian,
And his faith is not the true one."

In his answer is the line so characteristic of his strong feeling of individuality.

"Only one soul can believe,"

The people are excited by his words and exclaim:

"A light appears to us,
To live and to serve God are one."

"Away," cries Brandt as he locks the church door, "here is not God's house. I will no longer be a Pastor. No hand shall take this key from me." He throws it into the lake.

He calls upon the people to follow him to freedom while the Steward cries:

"Halt! read the Riot act."

The crowd press about him and take him on their shoulders. The Steward and Provost try to recall the people reminding them of their homes, their wives and children, but the excitement increases.

The scene changes to a mountain region with rain. Brandt followed by the crowd climbs upwards. But

soon the people begin to murmur. They remember sick friends, they are faint and footsore and they call for a miracle. They press Brandt with questions as to the length of the way, the reward that is to be given to them, and he thus replies:

"How long the strife shall last?
It lasts until the end of Life,
Till every sacrifice you've made,
Till from the bond you are made free,
Until you will, without reserve,
Till every doubt is gone
And nought divides from, 'All or Nothing.'
And your sacrifice? All the Gods
You put in place of God Eternal,
Your shining, golden, slavish chains,
With your weak, soft beds of Sloth,
The prize of victory? Unity of will,
The force of faith, the purity of soul,
The joy that penetrates your heart,
That sacrifices all, endures through all;
About your brow the crown of thorns,
See such the prize that shall be yours."

As the crowd begin to weaken and hesitate, the Provost comes and entreats them to return to his loving care. They still waver in their choice between the promises of the Provost and the admonitions of Brandt, when the wary Steward comes in and promises them that if they follow him, they shall all be rich before night. A school of herring is on the coast and they can all have their share. This is an irresistible temptation to Norwegian hearts, and the Provost says it is the finger of God pointing the way by miracle. All turn against Brandt, calling him a bad son, and father, and husband, and finally driving him up the mountain with stones. As they look after Brandt up the mountain they see that Gerd alone follows him, and they mock at the prophet with only one mad fool in his train.

Brandt stands alone in the icy waste and looks around. He reviews his whole life, and his heart longs intensely for the human love and joy he has lost. A shape comes to him, and in Agnes's name promises him, that all his dear ones shall be restored to him if he will resign his faith, and give up his three words "All or Nothing." He struggles with the temptation, feeling that to resist it he must give up everything, life, love, joy, even God's help. But he remembers that he does not suffer for himself alone.

BRANDT. "Not for my reward I suffered,
Not for my own victory struggled."

THE SHAPE. "Vainly seek you light to bring
To men gasping in the pit."

BRANDT. "Even one can many lighten."

THE SHAPE. "Never will you reach your end."

BRANDT. "One strong will urge on many."

THE SHAPE. "Think that out of Paradise,
Angry God drove the man,
A deep deep chasm then he opened,
Think not thou canst overleap it."

BRANDT. "Well, still Hope and longing are left to us."

The shape disappears amid loud crashing, the clouds come over the place and a voice is heard,

"Die, the world does not wait thee."

Gerd comes in with her gun and asks which way the evil spirit has gone. She says she will shoot the fiend with a silver shot.

She then looks on Brandt with wonder, marking his lameness and the drops of warm blood on his brow, and at last recognizes the marks of the cross and the crown of thorns, and asks if she shall greet him as the Savior and fall at his feet and pray. He refuses her homage, protesting his unworthiness, and she asks him if he knows where he stands. She tells him, he is on the Svartetind.

He cries "Svartetind—Ice-church—?"

GERD. "Yes. At last thou hast come. Art thou there?"

BRANDT. "Thousand miles away!"

He longs after the South, after the sunshine, the church-like peace of the heart, the fullness of life, and bursts into tears. He calls on Jesus but says he always slides away from him, like a word he has not found. Gerd tells him how he blesses her, and wonders that he weeps who never wept before.

His despair is loosened, the ice-ring breaks.

BRANDT. "I can go before the Father,
I can weep, and kneel, and pray."

Gerd shoots and hits the bad spirit.

The shot brings down the avalanche which buries Brandt and from the ruin he cries,

"Tell me God in my Death struggle
Is not sufficient for salvation—
Man's will—quantum satis—?"

The avalanche buries him up and fills the whole valley, and a voice is heard amid the crashing thunder,

"HE is deus caritatis."

Such meagre outline gives only a dim idea of the dramatic impersonation of this poem, but scarce a hint of the rich poetic beauty of its scenery, of the rapidly changing, flashing, dancing, crashing play of its cadences, still less of the crowd of thoughts and images that fill it. Its satire on existing men and institutions is keen as a knife blade, yet with the same realism that we find in his plays the world is shown before our eyes, and we are left pretty much to ourselves to extract the lesson from the picture. How calm and sensible is the Steward, how fatherly and kind the Provost, and how guileless the Schoolmaster. How well they know the world and understand how transient are the mad delusions of the people. Yet how the light of Brandt's inward fire shows them up. The shallow artist, who in the first trial prefers the safety of his life to the generous impulses of the maiden's soul, becomes the type of the vulgar religionist, who preaches religion and temperance through the land, and damns the soul which only trusts in God and not in his shibboleth of Faith.

But what shall we say of the central person, of the great thought of this poem, of Brandt himself? As

an artistic creation it is most wonderful that he holds our belief, our respect, our sympathy, even when he seems most stern and relentless to poor human nature, and crushes down the sweetest, tenderest feelings of his wife's heart.

Did he not know that

"Where sorrow's held intrusive and turned out,
There wisdom will not enter, nor true power,
Nor ought that dignifies humanity."

Yet while Agnes loved him, revered him, obeyed him even to the destruction of her child and her life, she never feared him, she keeps her own soul unenslaved and she dares to tell him that "he is harder than God," and there is a lesson of Love he has not learned.

"All or Nothing" is his creed, but he has not yet found the "All." He believes in a Power, a Ruler, a merciless Judge. He has not yet learned to believe in Life itself, in the holiness of all the daily joys and loves of human nature, in the underlying goodness which by the ministrations of human life slowly works out all good through errors, weakness, sins, and follies. His motto "All or Nothing" serves well that arch fiend Impatience, which is the chief source of Sin. He chooses his Faith, he wills to accept it, to renounce all for it, to make everything and everybody bend to it. He cuts a path to God with a sharp sword, no matter whose heart it pierces, he does not live in God's world, seek to know him and draw ever nearer to him through all his manifestations, and "gently slide into his providence."

It is Agnes who does this, who meets the need of the hour whether by courage, or patience, or endurance, or in the last extremity, by the willing acceptance of death. She still leads him on and saves him from the icy chill of his own Faith.

While Ibsen in his social dramas has usually treated the priests of the churches with cool contempt, this poem shows that he does so from no superficial ignorance of the mighty influence of religion in human life. His representative man is a great man, a lover, a hero, a saint, a type and not an unworthy one, of that great class of religionists to be found in every age and every faith, who maintain their allegiance to an accepted idea through all trials, and who have furnished the noble army of confessors and martyrs who bear witness to the nobility and truth of human nature. Brandt is a failure, but he is of that class of failures of which Emerson has said "that hitherto they are our highest success." Such failures are mile-stones on the road to the universal good.

If Brandt has not found a solution of his life questions that satisfies either himself or us, at least he holds fast to his search, and will not rest in any poor makeshift that puts on the semblance of religion, only

to win the world for his own. Einar and the Provost have this kind of success.

It would take long study and thought to fathom the one and the many meanings of this poem. It is in form a true work of art; for the beauty of the language, the fascination of the action, the exquisite truth of its characters so charm and hold you, that as in the world itself, you are tempted to rest in enjoyment of them and only after repeated search do the whole treasures of thought reveal themselves.

This is true even as we read it in a foreign language which is not the writer's original one, so that we have neither the facility of our mother tongue nor the force of an original speech. How much greater must be its charm to those who can receive it as it came from his pen. It is said that Ibsen's works have led to much study of Norwegian in England, it would seem worth while to learn it to read this one book in the original.

Written as it was before Ibsen's great social dramas, it throws light upon them and shows how deep is the affirmation which underlies his affirmations, and how strong is the reverence which prompts his iconoclasm.

God has "let loose a great thinker on our planet," no wonder that the busy world are afraid of him.

PERIODICITY AND FOOD.

BY E. P. POWELL.

THE whole subject of periodicity is exceedingly interesting. A careful study of our own functions will show that we do nothing without some relation to exact periods of action. We not only hunger and desire, sleep and wake at regular intervals; but the circulation and respiration, and all unconscious functions, obey established rhythmic times. Passing into society we are discovered to be under such laws of periodicity, that we have rhythmic social beats of pessimism and optimism. Financial expansion and contraction, with crises, come about with regularity. There are also laws that govern our migratory and predatory instincts. We move Westward at about a given rate. Negroes must migrate when the time comes, if permitted. They will inevitably decrease in proportion on the Atlantic Coast, and increase on the Pacific in marked degree.

"Nature" tells us that countless swarms of rats periodically make their appearance in the bush country of certain districts of New Zealand. They come in periods of four years. The Norway rats move in periodical migrations that lead them to pour on a given track in countless numbers into rivers and so perish by millions.

What is the secret of this periodicity? The problem is very complicated we may be sure. The author of "Our Heredity from God" tells us that there is in

human evolution a great deal of what may be termed periodicity. Ideas and lines of thought run their courses in given periods. Religions have from the outset had a period of about five hundred years. Brahmanism began its career about 2000 B. C. The next religious reform of Manu in Southern Asia, Tschow in Eastern Asia, and Moses in Western Asia, was about 1500 B. C. The song and psalm era of David and Homer was about 1000 B. C. The great reform era under Buddha, Confucius, Socrates, was 500 B. C. Then after Jesus the same writer notes the establishment of the Papacy, the culmination of the Hierarchy and the Reformation, as also occurring at intervals of five hundred years. "As we near the twentieth century, it seems certain that we are approaching the culmination and establishment of the age of reason as the age of faith. Nature steadily moves on intelligent lines. It is not a bundle of haps, but at all times all nature operates for definite ends."

A very simple illustration of periodicity is the emergence of the locusts from underground life once in thirteen or seventeen years. The emergence of the common May bug once in three years affords an easier study of the subject. The grub of this beetle, is this fall in the ground preparing for its perfect or winged flight next Spring. It takes three years to complete the cycle of its life. Now let us see what this periodic development brings with it. The grubs are eating our strawberry and grass roots in vast numbers just at present. The soil is full of this family. In May they will emerge. But each third year the moles are as sure to come in immense numbers to feed on the grubs. Their burrows plough the sides of our sunny hillocks and heave up the soil like sponge. Here are two periodic occurrences hinged on each other; and possibly one explains the other. The mole's migration is governed by the recurrence of its food.

It is quite possible that all migrations of animals have some such relation to food. Observers have failed to put facts together and discover, what is doubtless true, that in all cases the migration of animals is coincident with the occurrence of some sort of periodical food supply. We see this illustrated in the case of birds. The worm-eaters appear in the north, early in the spring; the bug and larvae-eaters later, and the seed-eaters not until midsummer when seeds begin to ripen. They return southward with similar discrimination. The rice bird of the Carolinas has gone through two periodical changes of location before eating in the swamp lands his farinaceous diet. He has even changed plumage in accordance with his food and home.

Birds have not only their annual migrations but those of larger cycles. Those which, like the robin, feed on earth-worms and berries, come to us in about

the same numbers each year; but those that feed on periodically appearing insects, come in largely increased numbers when such food is abundant.

I am confident from what data we have that further research will show that the secret of migration is in all cases an instinct, established to meet a special supply of food. The beetles and locusts that live in the ground for a number of years and emerge for a short period, may be said to create by their course of life-development, a law that governs the movements of moles and mice. The appearance of large numbers of the latter, establishes the periodic reappearance in certain localities of owls and hawks. I am not so certain what leads to the waves of squirrel life that ebb and flow, but am quite sure it has an explanation in accordance with the above hypothesis and facts.

All animals are migratory; and if the evolution hypothesis is correct, we should expect man to inherit from such ancestry a similar migratory habit. In fact all primitive races were migratory. The establishment of permanent homes came in only with the latest races, the agricultural. At the very last ploughs and cultivated fields created a necessity for fixed homes. The Aryan, when he became a land-tiller, began to build towns and cities. The hunting races never ceased to be swayed to and fro by food. Fixed homes would have ended in starvation and degeneration. The only way to keep up the *elan* and vitality of a tribe of North American Indians, is to allow them to move about. An Indian reservation is an abomination, unless the occupants take up agriculture. The degeneration will be rapid.

Shepherd races are governed by a supply of food for their animals, and only indirectly for themselves; so the regularity of migration begins in them to be broken up.

But as soon as civilization progresses far enough to permit us easy transit, we recur to our instinct for migrating; in other forms to be sure, but for all that it is migration. There is now a great swing of the population to the North in summer, and another to the South in winter. In this case the law of food supply is eliminated; for the same easy transit brings us our food without our seeking it. But that which is always the inferior motive in animal migration, that is climate, becomes with us the superior and controlling motive. The same process of civilization that relieves us of the necessity of going to food, renders us less and less adapted physically to endure climatic changes. So it comes about that, whilst losing the instinct in its original purport we retain it in another.

The subject is full of interest and invites investigation.

THE OUGHT AND THE MUST.

BY JOHN MADDOCK.

Dr. CARUS, in his book on the ethical problem, truthfully states that "ethics must have a basis to rest upon." What is true of everything else in the universe is true of ethics—there is a foundation for ethics. As there is but one basis for all things from the standpoint of monism, moral fruit has the same basis as material fruit. If the tree is good, its fruit is good. But the basis of the fruit is not the tree; neither is the basis of morals the man. The basis of both is that subtle power which resides in every atom, in every form. Both are rooted in the "All." Morals are not acquired, they are evolved; and to affirm to this truth is to establish the doctrine of Monism upon a scientific basis.

The conflicting ideas which are expressed upon the ethical subject are caused by not reasoning from the right premise. Philosophers have reasoned from the tree instead of the root. All things in nature are the results of certain combinations. Material fruit is the result of the combined influences of the rain, the earth, the sun, and the specific nature of the tree. All these have their roots in natural law. Moral fruit is the result of the combined influences of the Church, the State, and the intelligence and power of the individual; and all these have their roots in natural law—in the "All," they all proceed from one. There are different influences exerted in and upon men, but they are maintained by the same power, so that no man can boast of his morality any more than the vine can boast of its grapes. "Ought" is not the word from the standpoint of evolution and monism; whatever degree of moral quality is in a man, he *must* express it according to the combination of organism and environment.

There is no alternative; the laws of nature make no mistakes. With the basis of fire and gunpowder we have nothing to do, but we can play a part in the combination of an explosion when some circumstance demands it. So of ethics; we have nothing to do with the basis, but we become a part of the combination for moral evolution when we are consigned by natural law to our specific places. We do not bear the root, but the root bears us. The hands of the clock do not move the works, but the works move the hands. From the standpoint of evolution and monism, we stand in the same relation to the "All," as the hands do to the works of a clock.

Monism and evolution must not be confounded by separating man from the universe, and giving him self-determining power. This may do for religion, but it will not do for science. By religion man has been condemned; by science he is justified. Ethical societies are not possible [except] when a number of

persons desire to organize for the purpose of creating an environment in which they will enjoy themselves the most, and influence one another to "live justly and walk uprightly." The best people, therefore, will be found there. Instead of artificial morality—the product of the whip and threat of religion—there will be real, natural morality according to the principles of science.

The basis of an ethical society is a number of good people, and the basis of good people is the powerful "All" which reigns in all things. As a safe cannot be unlocked until the right combination is found, so ethical societies will not be in a flourishing condition until the natural combination is complete. There must be affirmation; due credit must be given to the power in the universal "All." Scientific affirmation must take the place of the superstitious.

THE OUGHT AND THE MUST.

SCIENCE knows of no arbitrariness in nature; science meets with dire necessity everywhere. Indeed, science is possible only in so far as the laws of nature are irrefragable and immutable.

The scientist who makes the facts of human morality the object of his investigation, can make no exception. He also must recognize the rigidity of law in the actions of man, and if he does not, he is no scientist.

Suppose there were no law in human action, but arbitrary irregularity, so that the same motives affecting the same character under exactly the same circumstances need not result (as from the standpoint of science we must assume that they do) in a definite action, or the inhibition of an action, but might produce results entirely undeterminable even to an omniscient spectator who knew every secret spring, every cog and wheel in the soul-mechanism of man: Suppose there existed any freedom of will in the sense of such an arbitrariness (a view which is generally called indeterminism): in that case, there would be no science of morality; ethics as a science would be an impossibility. But if science is true and if monism, the unitary conception of the world is true, man's activity can form no exception in the great household of nature. Man also must be considered as a part of nature, and man's activity, his moral actions no less than his immoral actions, as strictly determined by law.

Mr. Maddock (taking his standpoint on the ground of science, which is strict determinism,) is perfectly justified in declaring that "we do not bear the root, but the root bears us. The hands of the clock do not move the works, but the works move the hands."

Accepting the principle of determinism as correct, must we at the same time accept Mr. Maddock's con-

clusion that "*ought* is not the word . . . ; whatever degree of moral quality is in a man, he *must* express it according to the combination of organism and environment."

Nature's laws are rigid. The crystal forms itself, if no disturbing influences interfere, with minutely exact regularity. And furthermore, every disturbing influence alters the formation of the crystal in exact agreement with law. This is no exception to the law, it is a confirmation of it. The evolution of feeling beings is also regulated by law. The development of the soul of mankind shows the same necessity of natural law as does the formation of a crystal, and every disturbing influence affects the growth of humanity with precisely the same regularity as in the lower domains of natural processes. Man has become a rational being of necessity—of the very same unavoidable necessity by which, for instance, the shape of the fixed stars and their planets becomes spheroidal.

Having become a rational being man can comprehend his situation, he can understand the laws of nature, and with the help of his knowledge of the laws of nature, he can forecast the result of processes that take place around him. The knowledge man acquires thus becomes the most important factor of his existence; and the great advantages which accrue to man from making a more and more extensive use of knowledge, become a stimulus to develop strongly the tendency of obeying the rational advice which we can derive from experience. It is knowledge which discloses to man that in his individual existence he is only a part of a greater whole, and that he individually can live and prosper only when the community to which he belongs is in a state of health. The life of human society carries and nourishes the life of the individual; the part derives its existence from the whole, as the single cells of our body are sustained so long as the whole organism is vigorous and healthy. Knowledge accordingly creates the *ought*, and the *ought* is nothing that supersedes or stands in contradiction to the *must*; it is a comprehension of the *must*, and this comprehension finds expression in the ethical command of an *ought*. The formulation of the *ought* accordingly is in the course of nature the necessary result of comprehension becoming a factor in the further development of man.

The *must* of nature is not suspended by the *ought*; yet it is utilised. The curse only that under unfavorable conditions attaches to the *must*, is taken away. Man as a rational being, learns to avoid the disturbing influences in the formation of his soul, and human society can attain to a higher perfection. The *ought* of ethics accordingly must be based upon the *must* of science. A careful investigation of the *is* will give us information about the *is to be*. The ethical teacher on the

ground of his comprehension of the *is to be*, formulates the stimulus working in the right and desirable direction in the moral command of the *ought*, and raises his warning voice to call attention to the evil consequences of any disturbing influences that may unfavorably affect the pure formation of the *is to be*.

It is in this sense that we declare, "Ethics must be based* on facts and must be applied to facts." The *ought* can be stated only on the ground of a careful consideration of the *must*. The *ought* stands not in contradiction to the *must*, but it expresses the *must* as the *is to be* in its purity, if the disturbing influences are avoided.

The preaching of the *ought* has become a factor in the development of mankind, and the better we understand its nature the more effective will the factor of ethical aspirations be.

Man's morals are not acquired, as Mr. Maddock says, they are evolved. It is true, that "from the standpoint of evolution and monism, we stand in the same relation to the All, as the hands do to the works of a clock." Yet the simile is insufficient in one respect. The hands produce no reaction upon the works; they cannot regulate its movement. With reference to this ability, man must be compared to the regulator; for man, although evolved in nature as a part of nature, does react upon the natural conditions under which he has been evolved. He modifies, not the order of nature, not the laws of nature, but the state of nature by which he is surrounded.

The moral *ought* is the regulator in the mechanism of the human soul; and our ethical institutions, our schools and churches form the regulator in the clockwork of society.

The moral *ought* does as little demolish or overcome the principle of determinism as the regulator in a clock annihilates the irrefragability of mechanical laws.

Ethics demands obedience to the moral law, but this obedience is no servitude; it is rather a liberation from the evils of immoral action. If in an impulse of anthropomorphism so natural to man, he represents the *must* of natural law as a stern ruler and an inexorable master, he will symbolize his ethical impulse in the idea of a Savior and a Redeemer who leads him out of the house of bondage into a state of freedom.

Freedom in the sense of arbitrary action undetermined by law has no sense. If freedom means anything, it means the victory of the rational stimulus over the irrational impulses, so that the curse of the *must* is changed into a blessing. The law, being comprehended, becomes a part of ourselves, and the man

* Mr. Maddock says: "The basis of an ethical society is a number of good people." We prefer to call a number of good people, viz., people whose intention is that of being good, the *elements* of an ethical society.

in whom the ought of ethics has become the supreme rule of action, which controls all his motives; the moral man alone is the truly free man. Being in harmony with the law, he ceases to be the slave of necessity. Ethics is manumission, and the ethical man feels himself not a serf but a child of nature, as Paul says in his letter to the Galatians:

"We are not the children of the bond woman, but of the free."

SONNET.

BY MARY MORGAN (GOWAN LEA).

AT THE ORGAN.

"I have felt that many dreams and particular moments of my life I can as little erase from my memory as whole days of action and suffering."—*TRICK, in CANOENS; or, The Death of the Poet.*

GREY twilight faded into grimmest night.
Alone with death-like silence, musing there,
My meditation grew into a prayer.
Familiar chords I touched. Like flash of light,
A sound—as it had been an angel's flight—
Electrified my soul! Emotion rare
Thrilled all my being! "Poet-soul, O where?"
Cried I. "Invisible to human sight,
Enshrined in thine ethereal abode,
Commune thou with mortal? How or whence
This miracle? Aspiring unto thine,
Was my soul freed from galling earthly load?
O stooped thy heart of love to comfort mine?
What lent this moment its omnipotence?"

BOOK REVIEWS.

ERSTER NACHTRAG ZUR BIBLIOGRAPHIE DES MODERNEN HYPNOTISMUS. Von Max Dessoir. Berlin: 1890. pp. 44.

All interested in the subject of Hypnotism will be glad to see that Herr Dessoir has continued his admirable bibliography of the subject (published in 1888) in the present supplement. The latter carries the bibliography down to May 1890, and includes no less than three hundred and eighty-two titles, twenty-four of which come from America. The arrangement of the former bibliography is continued in this, and no pains seems to have been spared to maintain it as complete and convenient as possible. Notices of publications in this field may be sent to the author at Köthenerstr. 27 W. Berlin.

J. J.

THE PRISON QUESTION. By Charles H. Reeve. Chicago: Knight, & Leonard Co. 1880.

The object Mr. Reeve has in view is to show how society may protect itself against its disorderly elements, and check the rapid increase of the prison population. His suggestions are preceded by a review of the mental, social, and political conditions of the question, and of certain matters relating to crime, punishment, prisons, and the reformation of convicts. The position taken by the author in relation to the question he has set himself to solve is, that permanent reform is not possible until inquiry has been made into the causes which produce criminals, and into the means for the removal of such causes. Mr. Reeve has himself made an independent inquiry, and the conclusion he has arrived at is that "the conditions demand a system of education and training through some generations of teaching, tending to knowledge that will aid in the procreation of better mentality, in place of the offspring from indiscriminate indulgence within or without the marriage relations, which law and custom now permits, and

largely sanctions, too many of which are deformed, diseased, or deficient in mind and body." The idea of reformation should underlie all action of government in relation to criminals, but Mr. Reeve has little faith in the possibility of their reformation in the great majority of cases. His procedure is of a more radical nature, and is based on the well-established principle that prevention is better than cure. He would prevent the production of criminals, partly by a more rational mode of education than that which is pursued in the common schools, but chiefly by such a restraint on sexual conduct as would put a stop to the birth of undesirable members of society. He observes that "so long as society permits marriage to be regarded as an amusement, and divorce as a pastime, the evil-disposed will not be impressed with any idea of sanctity in marriage." That the law of marriage and divorce requires amendment in the direction pointed out by Mr. Reeve is true, but that such radical measures as he proposes would be adopted under present social conditions we cannot believe. Moreover, if adopted, they could not be enforced on such a scale as to have much practical value. It would require the incarceration of a large proportion of the present population to ensure the social "new birth," which our author would bring about. His views on the question of the treatment of prisoners is much more practical. The statement that "a convict must be regarded as a patient under treatment for a constitutional ailment, which can be cured only by means of a constitutional revolution, and the substitution of new physical and mental conditions," points out the direction towards which prison reform is tending. This subject is one of great social importance, and Mr. Reeve's book contains valuable suggestions in relation to it.

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SPIRIT AND SOUL.*

BY WILHELM WUNDT.

THE human mind cannot collect experiences without at the same time interweaving them with its own speculation. The first result of such natural reflection is the symbolism of language. In every domain of human experience there are therefore certain ideas which science, before it enters upon its work, finds already existing, as results of that original reflective process which left behind it in the symbolism of language its abiding traces. Thus heat and light are conceptions from the domain of external experience, which immediately proceeds from sensuous perception. Modern physics classes both under the general conception of motion. But it would not be possible to attain to this end without provisionally accepting the conceptions of the common consciousness and beginning with its investigation.

In a similar way soul, spirit, reason, understanding, etc., are conceptions which existed before scientific psychology. In the fact that natural consciousness everywhere represents inner experience as a separate source of knowledge, psychology can see a sufficient witness to its authorization as a science. And in doing this, it at the same time adopts the conception *soul*, to include the entire sphere of inner experience. Soul means therefore the subject to which we assign all separate facts of inner observation as predicates. That subject itself is in the main only determined by its predicates; the relation of the latter to a common basis is intended to express nothing more than their mutual connection.

We in this way at once eliminate a meaning that common language always connects with the concept soul. To it the soul is not merely a subject in the logical sense, but a *substance*, a real essence; as whose expressions or acts the so-called psychic activities are conceived. But in this lies a metaphysical assumption to which psychology may possibly be brought at the conclusion of its work, but which it cannot possibly adopt without investigation before it enters upon its work.

That which is commonly said of the distinction of inner experience, moreover, is not true of this assumption, viz., that it is necessary in order to open

the way for investigation. The symbols which language has created for the designation of certain groups of experiences, to-day bear in themselves signs that originally they did not merely stand in a general way for separate beings or substances, but even for *personal* beings. The most indelible trace of such personification of substance is to be found in the *genus*. Reason has gradually cast off this phantastic relation of conceptual symbols. In part the personification of substances has met its end; in part also the materializing of concepts. But who, on this account, would wish to discard the use of the concepts themselves and their designations? We speak of honor, virtue, reason, without conceiving any one of these concepts translated into substance. From metaphysical substances they have become logical subjects.

Thus then we regard also the soul provisionally as merely a *logical subject* of inner experience, a procedure which is the direct result of the formation of concepts in language, freed, however, from those additions of an immature metaphysics which the natural consciousness attaches to the conceptions created by it.

A similar course must be followed in respect to those ideas which we find existing, partly for special relations of inner experience, and partly for separate domains of the same. Language first places the soul and the spirit in direct opposition to each other. But both are notions that are interchangeable, notions to which in the domain of external experience correspond the two German words *Leib* and *Körper*.* *Körper* is that object of external experience, as it appears directly to our senses, without reference to an inner existence residing therein, *Leib* is the body when it is thought of with reference to this inner existence.

Similarly, spirit means the inner being or existence when no reference whatever is made to its connection with an external existence; while on the other hand the soul, especially when it is used in contradistinction to spirit, directly presupposes its union with a bodily existence which is manifest to our senses.

While soul and spirit comprehend all of inner experience (the relation in which the terms are taken, being the only point of difference,) the so-called psy-

* To the distinctions drawn between the German *Leib* and *Körper*, English has nothing that exactly corresponds. The English word *body* stands for both the German words. If we seek to draw the distinction made above perhaps *body* would stand for *Körper*, while *Leib* represents a living body.

* Translated from *Grundsätze der Physiologischen Psychologie*.

chic faculties of the soul designate the separate domains of the same, as they are seen to be separated from each other in direct self-observation. In the conceptions sensibility, feeling, understanding, reason, etc., language therefore forces upon us a classification of the processes presented to our inner perception that we, confined to these expressions, can upon the whole scarcely alter. Nevertheless the accurate definition of these conceptions and their incorporation in a systematic order is strictly a matter for science.

Probably the faculties of the soul originally meant not merely different parts of the inner scope of experience, but likewise many different beings, respecting whose relation to that collective being, which we call soul or spirit, no definite idea was formed. But the materializing of these conceptions lies so far back in the distances of mythological views of nature, that no caution need here be given against the over hasty conception of metaphysical substances.

In spite of this, *one* after-effect of the mythological conception has become transmitted *even to modern science*. It consists in this, that to the conceptions named above attaches a trace of the mythological idea of power. They are not merely regarded as class designations for definite fields of inner experience, which in fact they are, but they are often regarded as powers or forces by which the separate phenomena are produced. The understanding, for instance, is the power by which we perceive truths; memory, is the power which stores up ideas for future use, and so forth. But the irregular appearance, however, of the effects of these powers has upon the other hand raised some doubt with regard to the expression power, and thus the designation of psychical faculties has arisen. For by faculty we understand not such a power as *must* necessarily and constantly operate, but only such a one as *can* operate.

The origin of these conceptions from the mythological idea of force or power is here directly manifest. The prototype of the operation of such a power is plainly human action. The original signification of faculty is that of an acting being. Thus even in the first formation of psychological conceptions we find the germ of that mixture of classification and explanation, which constitutes a usual defect of empirical psychology. The general remark that the psychic faculties are class-conceptions which belong to descriptive psychology relieves us from the necessity of here pointing out their meaning. In fact a theory of inner experience may be imagined in which there would be no mention of sensibility, understanding, reason, memory, and the like. For in our self-observation there are immediately only separate ideas, feelings, and tendencies. Only after these elementary phenomena of inner experience have been dissected,

therefore, can the true signification of these class conceptions be determined.

To what has been said above we may here add a few critical remarks on the interchangeable terms soul and spirit.

From the soul our language separates the spirit as a second idea of matter whose distinguishing characteristic is that it, unlike the soul, does not by its sense necessarily appear in connection with a bodily existence, but may either stand in mere external union with such a one, or be freed entirely from it.

The idea of spirit therefore is used in a double sense: first for the basis of those inner experiences which we assume to be independent of the activity of the senses, and secondly to designate such a being as can be said in general to have no corporeal existence. Psychology, of course, has to do with the conception only in its first meaning, though it is directly to be seen that this must almost of itself lead to the second, since it is not apparent why the spirit may not also exist as a wholly independent substance, if its connection with the body were only external and accidental.

Philosophical thought could not leave the relation of soul and spirit in the indefiniteness with which the common consciousness was satisfied. Are soul and spirit different essences? Is the soul a part of the spirit, or is the latter a part of the soul? We plainly notice in ancient speculative philosophy the difficulty that this question caused it. On the one side it was forced by the connection between the inner experiences to postulate some one substance as the basis for them; on the other side it was led to deem as indispensable a separation of the activities engaged in sense-representation from the more abstract intellectual activities. Thus, by the side of the grand dualism between body and spirit there exists the more limited dualism between spirit and soul; and that too without the old philosophy being able to completely do away with it—be it that it now with Plato sought to destroy the substantiality of the soul, conceiving the soul as a mingling of spirit and body; or be it that with Aristotle, by transferring to spirit the concept abstracted from soul, it put in the place of the unity of substance a form of definition that accorded with both.

Modern spiritualistic philosophy upon the whole follows more the footsteps of Plato, but has held more firmly than he to the unity of substance for spirit and soul. Thus it resulted that generally the sharp distinction between the two concepts disappeared from scientific language. If any distinction was still made, either the spirit was regarded with Wolf as the general conception in which the individual soul was contained, or spirit was confounded and identified with the general psychical faculties, it being retained

as a general designation now for the so-called higher psychical faculties, and now for the faculty of cognition. In the latter case feeling and desire were later frequently comprehended in the term mind, and therefore the whole soul is divided into spirit and mind, without understanding thereby two different substances.

Sometimes, however, between the conceptions spirit and soul a mere distinction of degree was assumed, and thus a spirit was attributed to man but only a soul to animals.

Thus this distinction has constantly lost in definiteness, while at the same time the conception of spirit has been deprived of its property of substantiality. If, therefore, we wish to impart to this conception a meaning, that does not anticipate further investigation, we can only say that spirit also denotes the subject of inner experience, but that in it an abstraction is made from the relations of this subject to any corporeal being. The soul is the subject of inner experience with the conditions that its regular connection with an external existence brings with it; the spirit is the same subject without reference to this union.

Accordingly we shall then only speak of spirit and spiritual phenomena when we lay no weight on those factors of minor experience by which the same is dependent upon sensuous existence, that is our existence that is accessible to outer experience. This definition leaves it completely undetermined whether such independence of sensibility really belongs to the spiritual or not. For we can disregard one or more aspects of a phenomenon without denying in respect to it that these aspects exist.

DO WE WANT A REVOLUTION?

BY MORRISON I. SWIFT.

It is one thing to acknowledge the signs of imminent revolution, another to determine if we shall promote it. The choice has to be made, and there is no vagueness about the nature of it. The industrial and social forces are solidly combined against independence and manliness and originality.

It is now as it was of old—a man cannot serve two masters. He must seek to ingratiate himself in the social order, and to gather from it what good things he can, becoming a bulwark against justice and general happiness, or he must be a declared and inveterate enemy of the social order, making no terms with it, opposing it day and night, hurrying on its downfall.

It is easy for those who realize the iniquity and suffering on which this order exists to make their choice. They must be revolutionists because life would be dishonorable on any other terms. It were of course possible to witness silently the inhumanities of a

Depew, or Stanford, or Rockefeller, or Vanderbilt, or any little local magnate where one happened to live, but it would be dishonorable. These persons are the voluntary and satisfied agents of a system of oppression that is all the more acute and unbearable because of the intelligence of those oppressed. It is necessary to depose these monarchs of injustice and wealth; and the fact of their extraordinary power makes any concession or compromise fatal to a victory over them. To live in this decade non-committal; to let the rich go on depleting the poor while we advance our respect for them in proportion as they increase their plunder, this is scandalous and intolerable.

We want a revolution because peace is impossible when the mind awakes to the monstrous irony of wreathing those who have succeeded best in the war of selfishness and unscrupulousness, with the highest honors; we want a revolution because until some few become the implacable enemies of the present system and its managers, we are the sport of these managers—life in us is crushed while they live and thrive on us. The men called leading citizens,* live and thrive on the rest of us and crush us and make our lives hard and dull. I have no personal vindictiveness, but if these men are willing in the present hour of enlightenment to accept the colossal advantages their place in an irrational system gives them, to use these perfectly prodigious powers selfishly, as the system allows, to urge in extenuation that they are victims of the system like the rest, victims of a sorry state of human nature of which all make the most for themselves, meanwhile themselves sorry, then I am their enemy and will use what powers I have to overthrow them. The day of the suppression of ideas by vested interests is waning. We do not care for vested interests, we care to live. Vested interests no longer dazzle the imagination. We are inclined to think these important persons who own everything and make up the four hundred here and there, humbugs. We are surprised that any seek communion with them, and rather wonder that a new and select society does not spring up from which they are tabooed; a society of working-men, and scholars and farmers, honest persons, a little delivered from shams, not altogether determined to own earth, and sky and sea, and rent them. I find ownership the present gauge of respectability, but I do not respect the owners.

There is about to grow, born of revolution, a new society, whose spirit Plato invested with his genius. "I, therefore, Callicles, am persuaded by these accounts, and consider how I may exhibit my soul before the judge in a healthy condition. Wherefore disregarding the honors that most men value, and

*A series of names is here omitted. See the note on page 2591 of this number.

looking to the truth, I shall endeavor in reality to live as virtuously as I can; and, when I die, to die so. And I invite all other men, to the utmost of my power; and you, too, I in turn invite to this contest, which, I affirm, surpasses all contests here." The contest that is beautiful from age to age, the contest to live as virtuously as we can which surpasses all other contests here, is to-day one thing, is to-morrow changed; to-day it is the elaboration of material well-being for all, a new expedition of the race after happiness into the unknown, blazing the way to material equality and perfect individuality.

DO WE WANT A REVOLUTION?

IN REPLY TO MR. MORRISON I. SWIFT.

MR. MORRISON I. SWIFT is a young man and full of earnest enthusiasm for social justice and the elevation of the poor. He makes himself the attorney of the oppressed and hurls his shafts of indignation against the oppressors. To-day he appears as the prophet of a revolution, who indicts a number of rich men, "because," he says, "they make our lives hard and dull."

Their crime consists in being "willing in the present hour of enlightenment to accept the colossal advantages their place in an irrational system gives them, to use these perfectly prodigious powers selfishly." Not the slightest proof is adduced for this wholesale indictment. The indiscriminate in his collection of several well known names proves that Mr. Swift does not clearly know himself what they are guilty of. Are they arraigned for selfishness? Some of them are very active for the public good. Are they arraigned for possessing wealth? While none among them is poor, not every one of them is so extraordinarily rich as Mr. Swift seems to imagine. Nor does the plaintiff indicate what these criminals ought to do in order to escape the condemnation of selfishness. Perhaps he would repeat the demand of Christ: "Go and sell all that thou hast and give to the poor and thou shalt have treasure in heaven?"*

Plaintiff is a philanthropist and he kindly urges in extenuation that the rich are "victims of the system like the rest, victims of a sorry state of human nature." The personal indictment of these men seems to rest on the fact that they do not use their power to overthrow the social order. And this appears to Mr. Swift as the one thing that is needed. Having realized that there are iniquities and sufferings he is determined to promote revolution, because "life would be dishonorable on any other terms."

Mr. Swift undoubtedly hopes for a better system,

which he supposes will come after the breakdown of the present system. He may be a nationalist or an anarchist, I do not know; and it matters little. Yet it is certain that rash youth only can so wantonly, although with best and purest motives, clamor for a revolution. Putting the question to himself whether or not we must be revolutionists, Mr. Swift declares "it is easy to make his choice."

Does Mr. Swift know what a revolution is? A revolution is a breakdown of society. It is not a building up, it is a tearing down. It is not evolution, but it is dissolution.

A revolution is a great public calamity which falls equally heavy on the rich and on the poor. Perhaps it falls heavier upon the poor, because as a rule they have less education and are ignorant of the course of events. The facts of the French revolution speak loud enough. Are they now forgotten? To every rich man who was guillotined hundreds of poor met with the same fate, and thousands were actually starved to death.

A revolution is like a deluge that, the dam being broken, sweeps over a valley. The deluge will drown the rich as well as the poor. It will often happen that a rich man may be drowned as well as a poor man; but after all, the rich man if he be warned in time, has better chances to escape.

Who will profit by revolutions? Not the laborer, he will be starved; not the employer of labor, he will be ruined. There is one class of men that will profit. It is the sharper; he whose business flourishes while and because all the world is covered with misfortune. There are people who undertake to fish in muddy waters. These people are the only ones that are benefited by public disturbances, calamities and revolutions.

Several months ago I discussed the eventuality of a revolution with a leading anarchist of Chicago. I do by no means agree with anarchism; nor did this anarchist agree with my views, but he most emphatically joined me in denouncing the superstition so prevalent among many would-be reformers, that revolution can bring any salvation to society. He said, "When I was young and rash, I believed in revolution and hoped for a revolution; I thought to arrive at a higher state of society by a bee line road. But since I have seen more of life, I have ceased to believe in physical force. I then believed that society could be pulled up by the roots and pitched over the fence, and a new social machine, contrary to that which is, put in its place. I now see, that society is a slow growth, and the best we can do is to remove those special privileges, empowering the few to rob the many. Evolution may at times find expression in revolution, but its necessity is always to be deplored, because all violence, bloodshed, and wars debase the higher senti-

* The value of money is so little understood and so much misunderstood not only by the rich but also by the poor, that it will not be out of place to reproduce in this number an extract from the chapter on the uses and abuses of money in Dr. William Mathews' excellent work "Getting on in the World."

ments of the race, and destroy the sanctity of human life; the progress which comes through peace, though slow it be, is the most certain and enduring."

There is but one way of improving the condition of the laboring classes; that is by evolution. We must enforce a better position of the workers by legal means, not with the bullet, but with the ballot. This road is slower, but it leads by and by to the desired aim.

The bee line road of revolution will not bring us nearer to a realization of our ideals. In order to reach a better state of society by the slow process of evolution, we must educate mankind up to it, we must teach them a higher morality and a respect for law.

What a terrible error it is to preach justice and recommend the overthrow not of this or that law only, but of all laws and of the whole order of society.

Society is not an artificial system that can be constructed with arbitrariness. Society is an organism and the laws of its development are similar to those of living creatures, of plants and of animals. You can promote the growth of a tree, by digging round its stem, by watering the roots and pruning the dead branches in its crown, nay, you may inoculate a tree so that indeed the thorns may be made to bear figs or grapes. But if you pull out the whole tree, you will have to begin quite anew, and it will take a long while until it has reached that state again in which it is now.

Incendiary speeches are cheap means for agitators to become popular with the uneducated among our laboring classes. Yet I hope to see the time when our laborers will hoot at the demagogue who attempts to excite them with preaching hatred and ill will.

Yet the incendiary speeches of demagogues should not be ignored by the rich. We should recommend them to the rich for a careful perusal. There is certainly something wrong in a state of society in which young men, enthusiastic for justice, openly clamor for a revolution.

We have not hesitated to publish Mr. Swift's article, not because we agree with him in the justice of a revolution, or in the advisability of preparing a revolution; on the contrary because we should consider a revolution as the greatest public calamity, the evil consequences of which cannot be all foreseen. The probability, in my mind, is that the final result of a great revolution in the United States, would be the downfall of the republic and the establishment of an empire. A revolution, so far as I can see, will bring us no liberty but serfdom.

It is a law of nature that if a nation cannot govern itself, a usurper will keep order in that nation, and every revolution in a republic is a sign that the citizens are not able in a peaceful way to administer their public affairs.

The rich therefore, should heed the cry of alarm.

They should consider that a revolution becomes an inevitable necessity as soon as the discontent of the poor in a country has reached a certain height at which their yoke appears to them unbearable.

Our society is by no means free from grievances, although they have not yet reached their fill. We should beware of the very beginning and mind all the symptoms of dissatisfaction. The greater the patience of the oppressed proves to be, the more formidable will be the outbreak of their indignation.

It is not good to build barriers between man and man; as says the prophet Jeremiah: "Let not the wise man glory in his wisdom; neither let the mighty man glory in his might; let not the rich man glory in his riches." And the apostle Paul writes to Timothy: "Charge them that are rich in this world, that they be not high-minded nor trust in uncertain riches."

The duties of those that have great possessions are greater than the duties of the poor. The more power a man has, the more imperative is his obligation to be just in all his dealings with his neighbors. The citizens of a republic should not attempt to make a caste of wealth; and ought to abhor all oppression of the poor. The employer must show his own independence and his sense of independence by respecting the independence of his employees. When weighing the worth of a man, let us not consider the amount of his property but the manliness and honesty of his character.

Is there any sense in admiring the aristocratic habits which have become fashionable with so many of our wealthy families? Let us exercise, ourselves, and teach our children to exercise simplicity. Let us honor the democratic principles which so well become the citizens of a republic, and the mere idea of a revolution will become a ridiculous bugbear.

Then let us pray that come it may,—
As come it will for a' that,—
That sense and worth, o'er a' the earth,
May bear the gree, and a' that.
For a' that, and a' that,
Its coming yet for a' that,—
When can to man the world's o'er,
Shall brothers be for a' that.

P. C.

THE USES AND ABUSES OF MONEY.*

BY WILLIAM MATTHEWS.

"Poverty is a condition which no man should accept, unless it is forced upon him as an inexorable necessity or as the alternative of dishonor. No person has a right voluntarily to place himself in a position where he will be assailed hourly by the fiercest temptations, where he will be able to preserve his uprightness only by a strength little short of angelic, and where he will be liable at any moment to become by sickness a burden to his friends. Every man, too, should make some provision for old age; for an old man in the poor-house, or begging alms, is a sorry sight, and suggests the suspicion, however ill founded, that his life has been foolishly, if not viciously spent.

* Republished from "Getting on in the World."

"We say, therefore, that the philosophy which affects to teach us a contempt of money does not run very deep. Indeed, it ought to be clearer to philosophers than to other men that money is of high importance, and that its importance increases with every generation. So manifold are its bearings upon the lives and characters of mankind, that, as Henry Taylor observes, in his 'Notes on Life,' an insight which should search out the life of a man in his pecuniary relations would penetrate into almost every cranny of his nature. . . .

"The provident man must of necessity be a thoughtful man, living, as he does, not for the present, but for the future; and he must also practice self-denial, that virtue which is one of the chief elements in a strong and well-formed character. As with the acquisition, so with the use of money; the way in which a man spends it is often one of the surest tests of character. As Bulwer says in one of the most thoughtful essays in *Castiglione*,—'Money is a terrible blab; she will betray the secrets of her owner, whatever he do to gag her. His virtues will creep out in her whisper; his vices she will cry aloud at the top of her tongue.'

"As civilization advances, human life is becoming more and more significant, richer in opportunities and enjoyments. Science is multiplying with amazing rapidity the comforts and luxuries of life and the means of self-culture, and money is the necromancer by which they are placed at our disposal. Money means a tight house, the warmest clothing, the most nutritious food, the best medical attendance, books, music, pictures; a good seat in the concert or lecture room, in the cars, and even in the church; the ability to rest when weary in body or brain, and, above all, independence of thought. It is said that in England no man can afford to have an opinion who has not an income of two thousand a year; and even in this land of broad acres there are already many men who think themselves too poor to indulge in 'the luxury of a conscience.' Every step in life is conditional on 'the root of all evil.' You must pay to eat and drink, to sleep, to house and clothe yourself, and even to breathe. Every breath is a consumption of carbon, which must be paid for as inevitably as the coal in your grate. The creditor is at every man's heels, dogs him in his last moments, and hardly stops short at the graveyard gate. Not only is money thus indispensable, but the value of this representative of values was never before so great as now. With this talisman, a man can surround himself with richer means of enjoyment, secure a more varied and harmonious culture, and set in motion grander schemes of philanthropy in this last half of the nineteenth century than at any previous period in the world's history. And precisely because it means so much, because with it life is so rich in possibilities, the want of money was never before so keenly felt as now. Though the poor to-day have luxuries which a Cæsar could not have commanded three centuries ago, though 'the world must be compassed that a washerwoman may have her tea,' yet never was poverty so hard to bear as to-day. . . .

"There are men born with a genius for money-making. They have the instinct of accumulation. The talent and the inclination to convert dollars into doubloons by bargains or shrewd investments, are in them just as strongly marked and uncontrollable as were the ability and the inclination of Shakespeare to produce a Hamlet and an Othello, of Raphael to paint his cartoons, Beethoven to compose his symphonies, or Morse to invent an electric telegraph. As it would have been a gross dereliction of duty, a shameful perversion of gifts, had these latter disregarded the instincts of their genius and engaged in the scramble for wealth, so would a Rothschild, an Astor, and a Peabody have sinned had they done violence to their natures, and thrown their energies into channels where they would have proved dwarfs, and not giants. . . . Academies, colleges, hospitals, museums, libraries, railroads,—none of which could have been possible without their accumulations,—are the proofs of their usefulness; and though the million-

naire too often converts his brain into a ledger and his heart into a mill-stone, yet this starvation of his spiritual nature is no more necessary in his pursuit than in that of the doctor or the lawyer. Agassiz is reported to have said, half scornfully, that he had 'no time to make money,' having given himself to science. But how could he get leisure to study the secrets of nature, if others had not made money for him? . . .

"Especially should the business man, who is tempted to sacrifice everything to the golden calf, be cautioned against the common fallacy that happiness will increase in proportion to his gains. Dr. Johnson, indeed, once argued to the contrary. 'If six hundred pounds a year,' he said, 'procure a man more consequence, and of course more happiness, than six pounds a year, the same proportion will hold as to six thousand, and so on as far as opulence can be carried.' The facts do not sustain this theory. It may be doubted whether large possessions do not bring as many pains as pleasures. After one has enough to satisfy every reasonable want, to give free play to all his tastes in art, literature, or science, it may be questioned whether any addition to his wealth does not bring more anxiety and responsibility than enjoyment. Bacon wisely remarks that a large fortune is of no solid use to the owner, except to increase his means of giving; 'the rest is but conceit; the personal fruition in any man cannot reach to feel great riches.'

"The owner of capital really reaps the smallest portion of the advantages which flow from its possession, he being, in fact, but a kind of head bookkeeper, or chief clerk, to the business community. Though rich as Rothschild, he can neither eat, drink, nor wear more than one man's portion of the good things of life. The Astors and Stewarts, whose wealth is counted by tens of millions, are, after all, only the stewards of the nation, and, however selfish, grasping, or miserly they may be, are compelled, even when they least desire to do so, to use their accumulations for the public good. Their money-making talents enable them to employ their capital, which would soon melt away in the hands of a spendthrift or bad financier, to promote the common welfare and to increase the general prosperity. The rich man in this country, who is ambitious to increase his riches, does not waste his money in luxuries or foolish schemes, but, as one has well said, he invests it in all sorts of enterprises, to the selection of which he brings enormous natural shrewdness, strengthened by the experience of a lifetime, and in every one of which it is devoted wholly to the employment of labor. 'If he puts it in unproductive real estate even, as he doubtless does sometimes, he releases some one else's money, which goes into production. If he builds houses to let, he employs labor and helps to lower rents; if he makes railroads, he employs miners, iron-founders, machinists, and helps to transport commodities; if he goes into spinning and weaving, or gardening, the result is still the same,—labor is employed, and employed with such sagacity that it is sure to return the capital and something more. If he loaded himself with diamonds, filled himself every day to the chin with French dishes and wines, and wore cloth of gold, and lived in a palace, it would be found that his salary was low. If we dismissed him, that is, took his property from him, and employed a philanthropist or editor or lyceum-lecturer to manage it in the interest of 'humanity,' the probabilities are that there would not be a cent of it left at the end of five years. It would have been put into the production of goods that nobody wanted, of roads on which nobody would travel, or stolen by knaves and wasted by visionaries.'

"These truths are well illustrated in the anecdote told some years ago of two men who were conversing about John Jacob Astor's property. Some one was asked if he would be willing to take care of all the millionaire's property—ten or fifteen millions of dollars—merely for his board and clothing. 'No!' was the indignant answer; 'do you take me for a fool?' 'Well,' rejoins the other, 'that is all Mr. Astor himself gets for taking care of it;

he's found, and that's all. The houses, the warehouses, the ships, the farms, which he counts by the hundreds, and is often obliged to take care of, are for the accommodation of others.' 'But then he has the income, the rents of all this large property, five or six hundred thousand dollars per annum.' 'Yes, but he can do nothing with his income but build more houses and warehouses and ships, or loan money on mortgages for the convenience of others. He's found, and you can make nothing else out of it.'

'If a rich man wishes to be healthy, says Sir William Temple, he must live like a poor one. Izaak Walton tells us that there are as many troubles on the other side of riches as on this, and that the cares which are the keys of riches hang heavily at the rich man's girdle. How many men, on reaching the pinnacle of wealth, find, as they look down upon their moneybags, that they have only purchased one set of enjoyments by the loss of another equally desirable! 'Do you remember, Bridget,' writes Charles Lamb, with a tender retrospect to his poverty, 'when you and I laughed at the play from the shilling gallery? There are no good plays to laugh at now from the boxes.' Nothing, in the abstract, seems easier than to get pleasure out of money; yet to many persons nothing is apparently more difficult. . . .

'Even the most specious and plausible reason for seeking riches, namely, to be above the necessity of a rigid economy, or the pressure of debt, Archbishop Whately shows to be unsound and deceptive. It is worth remarking, he observes, as a curious circumstance, and the reverse of what many would expect, that the expenses called for by a real or imagined necessity of those who have large incomes are greater than those of persons with slenderer means; and that, consequently, a larger proportion of what are called the rich are in embarrassed circumstances than of the poorer. This is often overlooked, because the absolute number of those with large incomes is so much less, that, of course, the absolute number of persons under pecuniary difficulties in the poorer classes must form a very large majority. But if you look to the proportions, it is quite the reverse. Take the number of persons of each amount of income, divided into classes from \$500 per annum up to \$500,000 per annum, and you will find the percentage of those who are under pecuniary difficulties continually augmenting as you go upwards. And when you come to sovereign States, whose revenue is reckoned by millions, you will hardly find one that is not deeply involved in debt; so that it would appear, the larger the income, the harder it is to live within it. In other words, the tendency to spend increases in a greater ratio than the wealth; and hence competence has been wittily defined as three hundred a year more than you possess.

'The insufficiency of mere wealth alone to confer happiness was strikingly illustrated in the life of Nathan Myers Rothschild, the great Jew banker, who died in London some years ago, 'one of the most devoted worshippers that ever laid a withered soul on the altar of Mammon.' For years he wielded the purse of the world, opening and closing it to kings and emperors as he listed; and upon certain occasions was supposed to have had more influence in Great Britain than the proudest and wealthiest of its nobles, perhaps more than the two houses of Parliament taken together. He once purchased bills of the government in a single day to the amount £4,000,000, and also the gold which he knew the government must have to pay them; and with the profits of a single loan purchased an estate which cost him £150,000. Yet, with the clearest and widest comprehension in money matters, with the most piercing insight into all possible causes affecting the money market, and with ingenuity to effect the profoundest, most subtle, and most unsuspected combinations,—an ingenuity before which all the other prodigies which have from time to time appeared sink into nothing,—he was, withal, a little soul. He exercised his talents and powers of calculation, not only for the accumulation of millions and the management of national creditors,

but also for the determination of the smallest possible pittance on which a clerk's soul could be retained in connection with his body. To part with a shilling in the way of charity cut him to the heart.

'To conclude: money is a good thing, of which every man should try to secure enough to avoid dependence upon others, either for his bread or his opinions; but it is not so good a thing that, to win it, one should crawl in the dust, stoop to a mean or dishonorable action, or give his conscience a single pang. Money-getting is unhealthy when it impoverishes the mind, or dries up the sources of the spiritual life; when it extinguishes the sense of beauty, and makes one indifferent to the wonders of nature and art; when it blunts the moral sense, and confuses the distinction between right and wrong, virtue and vice; when it stifles religious impulse, and blots all thought of God from the soul. Money-getting is unhealthy, again, when it engrosses all one's thought, leads a man to live meanly and coarsely, to do without books, pictures, music, travel, for the sake of greater gains, and causes him to find his deepest and most soul-satisfying joy, not in the culture of his heart or mind, not in doing good to himself or others, but in the adding of eagle to eagle, in the knowledge that the money in his chest is piled up higher and higher every year, that his account at the bank is constantly growing, that he is adding bonds to bonds, mortgages to mortgages, stocks to stocks, and may say to himself, 'Soul, thou hast much goods laid up for many years.'

'Let every one, then, who wishes to get on in the world, justly estimate the value of money. Let him neither, on the one hand, make it the only gauge and object of success, nor, on the other, affect for it a philosophic contempt which the necessities of life will compel him to unlearn. Let him neither strive for a mere living, nor (unless he has a rare genius for money-making,) for a great fortune, but gather gear, as Burns says,—

'By every wile
That's justified by honor;
Not for to hide it in a hedge,
Nor for a train attendant,
But for the glorious privilege
Of being independent.'

'A great deal has been written on the art of money-getting; but, though comparatively few become rich, there is no real secret about it. The pith of the world's wisdom on it is condensed into a few proverbs. To work hard, to improve small opportunities, to economize, to avoid debt, are the general rules in which is summed up the hoarded experience of centuries, and the most sagacious writers have added little to them.'

CORRESPONDENCE.

DO WE WANT A REVOLUTION?

To the Editor of The Open Court:—

I HEREBY return proof of article mentioned, and have written in a concise form what my sentiments really are. Although the matter as it now stands will take up more space than the quotation you have made, I could not leave the quotation stand as you made it: (1) because I cannot see how I could have expressed myself on the ballot and law as a constructive element in the progress of society and be a consistent anarchist. (2) I do not wholly discard revolution as a means of social progress; but its necessity as I say is always to be deplored. I think after careful reflection, you will agree with me that revolution as a principle cannot unqualifiedly be condemned. Take the revolutionary nations to which you and I belong, with their plastic web, molding and remolding their institutions to suit their ever changing exigencies, and contrast them, with some of the Oriental nations, in whom the fire of revolution has been extinguished, and notice the fixed

condition of their habits. Progress with them is dead and if they will ever rise to a higher life, it will be because in this age of international commingling, they are brought in contact with that iconoclastic and revolutionary element, that has at times smashed those institutions which hampered man in his onward and upward march.

CHICAGO, Oct. 26, 1890.

Geo. A. SCHILLING.

[I take no exception to Mr. Schilling's position on the question of revolution. To state my view in two words, I should say, that *revolution* becomes necessary as soon as *evolution* has become an absolute impossibility. Yet even then, as Mr. Schilling says, revolutions must be deplored; it must be deplored that there are sometimes men in power who can effectively check all evolution and by oppressing their fellowmen wantonly produce a revolution. Not Spartacus was guilty of rebelling against the Roman Republic but the Roman people who trampled the rights of men under foot. But because the gladiators of Spartacus could only destroy not build a civilization they were in the end doomed to destruction, in spite of many glorious victories over the generals of the most warlike nation of the time.—P. C.]

BOOK REVIEWS.

ELEUSIS. A Poem. Chicago: Privately printed. 1890.

The key note to this volume of pessimistic philosophy in verse is to be found in the lines prefaced:

"Eleusis mourns beside the sea,
Her secret pomp of worship fled;
But, though her priest and rite be dead,
Still lives the Eternal Mystery.
Nor can the Eleusinia die;
What though the centuries wax and wane,
From each new age sounds out again
The Eternal Questioning, Whence and Why?"

The poem is not an attempt to solve the mystery of life. It is the imaginary wail of a soul, that after trying all paths, and finding only an endless maze strewn with shattered hopes, retires into itself, after vainly seeking consolation in love, sighing,

"The mind is naught, and naught the heart,
And nature lies in endless sleep."

Many beautiful thoughts are to be found scattered through the poem, which is a real work of art, but its tone is not healthy, although it does in some measure represent the ideas which are floating through the minds of many of those who, having left the old oracles and seeking a solution of the problems of life from Nature, do not ask in the right way, and therefore to them

"The Eternal Silence answers back."

Public Opinion, the eclectic weekly published in Washington and New York, offers a first prize of \$50, a second of \$30, and a third of \$20 for the best three essays on the interesting question: "The Industrial Future of the South." The essays must be limited to 3000 words, and must be received by December 15th. Full particulars may be had by addressing *Public Opinion*, Washington, D. C.

The Unitarian Missionary Mass Meeting is being held as we go to press, at Unity Church, Chicago. The opening sermon was preached by Rev. M. J. Savage, of Boston. The general topics to be discussed at this evening's sitting include "Some Missionary Agencies," by Mrs. Charles L. Moss, St. Louis; Miss Ellen M. Gould, Davenport; and Rev. Geo. A. Thayer, Cincinnati. "Church Work," by Rev. Eliza T. Wilkes, Sioux Falls; Rev. S. A. Eliot, Denver; Rev. H. D. Maxson, Menomonee; and "The Layman's Responsibility," by Hon. J. F. McKeighan, St. Louis; Hon. Robert A. Sankey, Wichita; Prof. J. W. Cook, Illinois Normal University; and Gov. Austin Blair, Jackson, Mich.

THE INDISCRIMINATE DENUNCIATION OF THE WEALTHY.

Mr. Morrison I. Swift is favorably known to the readers of *The Open Court* by several articles pointing out the way of judicious reform in social matters. There were many plans and aspirations of his with which we could heartily sympathize. His article "Do We Want a Revolution" does not meet with our approval. But for that very reason we have thought proper to publish it together with a statement of our opinion on the same subject, and for the consequences let truth take care of herself. Before this number went to press we have deemed it advisable to suppress the string of names mentioned in Mr. Swift's article. It happens that we are personally acquainted with one of them who is very active in clearing away the misconceptions between employers and employees, capital and labor, and we asked his advice as to the propriety of letting the names stand. Here is the passage of his answer that has reference to this point:

"The use of names, indulged in by Swift and his confrères is to be deplored. Knowing little or nothing about the financial doings or social actions of those, they thus try to focalize prejudice and hatred against; they condemn without trial. Perceiving this, many men who accumulate means, hide from public notice. They refuse to identify themselves with movements which would ameliorate if not cure the troubles of the poor and the unfortunate, while those who are sympathetic and active are assailed. The effect is undoubtedly bad all round. It is not pleasant for men like Mr. — and the others to be thus pilloried. It is not agreeable to me. I, however, should utter no complaint if as a journalist you thought it proper to publish names and all."

There are men who have made fortunes by doubtful means. They, as a rule, remain unmolested, so long as they avoid to identify themselves with any movement for the public good. Are not many of our wealthy citizens who have the best intentions, thus frightened away from making themselves serviceable to the public good?

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P. O. DRAWER F.

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SOUTH AMERICAN REPUBLICS.*

BY FELIX L. OSWALD.

THE neighborhood of Meran, in the Austrian Alps, with their wealth of ancient pine-forests and the dry, cool breezes of an airy highland, enjoys a rarely paralleled combination of natural chances for the attainment of longevity. Almost in sight of the same Alps, the city of Mantua, with its girdle of festering lagoons, is avoided by tourists on account of its exceptional unhealthiness.

Suppose a boy, well instructed in all the principles of rational hygiene, were to be adopted by an intelligent Mantua physician, while his twin-brother were to stray to the highlands of Meran and find a home in a village of cheese-peddling rustics, with their crass sanitary prejudices. Which of them would stand the best chance of survival? A magnificent climate, offset by prejudice, on the one side; climatic disadvantages, redeemed by social and educational influences, on the other.

In America nature has given us an opportunity to study the results of a similar experiment on a very large scale. Along the southern borders of the United States, some five million descendants of the Latin race have been brought under the more or less direct influence of Saxon civilization. In the temperate zone of South America about the same number of Latin colonists enjoy a climate tending to revive every dormant instinct of manhood and energy, but often in situations leaving their spiritual taskmasters free to perpetuate the superstitions of the Middle Ages in full security from the interference of heretical strangers.

The instance of the so called Republic of Ecuador illustrates the baneful significance of that predicament, and shows to what extent the priests of antinaturalism are still ready to sacrifice freedom and happiness on the altar of their idol. By a thorough monopoly of educational institutes, by a jealous control of the press and of what might be called the vocal instruction of the masses, a million descendants of Inquisition-ridden ancestors have been kept from as much as suspecting the fact that the night of mediæval insanity has anywhere been broken by the dawn of a new era. But, on the other hand, the educational history of the Republic of Chile proves how precari-

ous is the tenure of power enjoyed by the managers of such latter-day theocracies. The prerogatives of the clerical vampires haunting the valleys of the Equatorial Andes, may be forfeited by such accidents as a slight change in the proposed direction of the South American West Shore Railroad, or the discovery of placer-mines extensive enough to attract a large number of foreign adventurers.

In 1840 Chile was still as much in the power of the priests as Portugal or Castile. The constitutional provision making Roman Catholicism the only legal creed, had been accepted with a majority of fifty-two in sixty-eight votes. President Bulnes and the dictator Preire were mere tools in the hand of the archbishop of Santiago. A so-called "National Library," collected at considerable expense and enlarged by a yearly appropriation, was catalogued in 1852 and found to contain chiefly theological text-books.

From that lethargy the dormant, but by no means deficient, energies of the nation were roused by the party-conflicts which in 1856 culminated in the election of Don Manuel Montt, a scholar and free-thinker, who owed his nomination to the influence of a junta of patriots arraigned against the more and more intolerable despotism of the church party. In Peru the arrogance of the same party has been passively endured for a series of centuries by the ethnological kinsmen of the colonists, who twenty degrees further south risked life and property in the struggle for moral emancipation, and whose practical commonsense has since risen superior to the semi-liberal traditions guiding the founders of our own commonwealth. Instinctively, if not by dint of historical studies, the reformers of Chile have recognized the fact that the "separation of Church and State" is doomed to remain an empty name unless accompanied by the far more important separation of Church and School, and for thirty-five years they have directed their incessant efforts to the accomplishment of the task of wresting the education of the young from the hands of the priests. The adoption of a law interdicting the interference of the clergy in affairs entrusted to the Government commissioners of public instruction, was celebrated as a signal national triumph, and even the bribe of free-tuition does no longer tempt intelligent parents to send their chil-

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dren to the clerical colleges. As a counter-measure to the possible influence of that bribe free text-books are furnished to the pupils of the public schools from a fund raised partly by voluntary contributions. Since 1870 not less than 424 private schools have been founded under the auspices of the Liberals; museums and public libraries have been opened in sixteen of the larger provincial towns, civil marriages have been legalized, and the revised code of 1882 repeals numerous civil disabilities formerly attaching to dissenters and illegitimate children. Every attempt to rivet the broken shackles of clerical despotism has proved that south of the thirtieth parallel the disciples of Ignatius Loyola risk to stray out of their latitude, for it is a curious fact that the strongholds of clericalism are still in the northern provinces, along the borders of torpid Peru.

But nowhere else on earth has the history of civilization more clearly demonstrated the fallacy of an axiom which Henry Buckle pretended to deduce from the moral contrast of Hindostan and northwestern Europe: the rule, namely, that the energy of nature and of man stand in inverse proportion. Buckle's theory, as defined in the opening chapters of his great philosophical work, seems to have been about as follows: Wherever Nature is grand and impressive, in countries of majestic mountains, in the regions of earthquakes and violent storms, man is cowed into abject inactivity and grovelling superstitions. On the other hand, where Nature is tame, man ventures to use his reason and begins to discover his ability of coping with the hostile powers of the elements, thus developing habits of self-reliance. That hypothesis seems really strikingly confirmed by the instance of India with its heaven-kissing mountains and dust-kissing natives, or of Great Britain, without a single inaccessible hill-top or unbridgeable stream, and a bustling, self-reliant, nature-subduing population. But what about Russia, where Nature is miserably tame and man not less miserably indolent and superstitious; what about Scandinavia where the most impressive phenomena of physical geography have failed to daunt the pluck of the natives; what about ancient Greece, with its snow-capped Olympuses, deep seas and by no means unfrequent earthquakes?

But the conclusiveness even of the last-named instance is eclipsed by that of the Republic of Chile. From north to south the country is an incessant battle-ground of the Phlegraean Titans, the veritable "Land of Earthquakes," as Prof. Mervin calls it, a land not much larger than the state of Texas, yet saddled with twenty-seven undoubtedly active and four more "suspected" volcanoes. During a period of three years the records of the Government observatory of La Serena in the province of Coquimbo show a list of 156

heavy shocks, besides countless "temblores"—tremors, which are described as more frequent than the rain-showers of our northern latitude. Since the arrival of the first Spanish colonists (1550-60) i. e., during a period of little more than three hundred years, the history of the country records the occurrence of not less than sixteen memorably destructive earthquakes, all attended with a considerable loss of property and life. That of 1570 obliterated the town of Concepcion, where 2,000 persons perished under the ruins of the falling walls; that of 1647 demolished Santiago and shook down prodigious avalanches of mountain-debris, causing the destruction of 38,000 head of cattle. In 1730 Valparaiso, La Serena, Coquimbo, and several hundred villages were devastated in less than ten minutes, and during the volcanic convulsions of 1822 the entire coast of Chile for a distance of fifty geographical miles north and south of Valparaiso was upheaved or rather permanently uplifted between five and six feet. Storms of appalling violence sweep the coast every year from August to November, and the scenery of the great main-chain of the Andes as seen from every hill along the shoreline of 1800 miles, could hardly be grander: Snow-peaks of 20,000 to 23,500 feet piercing a deep-blue sky, dizzy precipices and apparently bottomless gorges of the volcanic foothills, backed by three successive ranges of steep, stern Sierras: all in all the very ideal of a country to test the correctness of Mr. Buckle's hypothesis. Even the *fauna* of the wilderness adds its terrors to that array of appalling factors: there are giant-cats in the woods and bellowing sea-lions on the coast, and the Chilean Andes, alone of all South American highlands, are haunted by a species of bear, the *ursus ornatus*.

Yet all those deterrents are more than offset by the energy-encouraging influence of a single circumstance: the moderate range of the yearly temperature, which at Santiago, for instance, has never been known to rise above 90° Fahrenheit, nor to sink below 47°. Throughout the long coast-plain there are not more than twenty days in the year, when the state of the weather does not make outdoor-work a pleasure. The highlands abound in minerals and constantly invite the adventurous to a region of invigorating atmospheric influences. The physical energy of the natives is not seen only in their material progress: the construction of wharves and railways, but was signalized during the recent war with Peru in a way not apt to be forgotten by the neighbors of the plucky republic. In nearly every battle the Chilenos dropped their rifles and rushed in to decide the contest at close quarters, with their formidable hunting-knives. That preference for hand-to-hand conflicts has always been a characteristic of physically superior races. Lieutenant Gillis,

who passed many years in South America, states as his deliberate opinion that in the strength of their arm muscles the Chilean rustics have no match among the nations of the modern world.

Even now, Chile is an object of aversion among her indolent South American sister-republics, as Prussia and Old England were among the European sisterhood of states, but in the long run climatic influences will prevail against the results of political intrigue. Santiago, the Mars of the Spanish race will transfer his favorite temple from Compostella to southern Chile; and it is a safe prediction that before the middle of the next century a city at the foot of the southern Andes will have become the political metropolis of a very large territory. Sooner or later border-quarrels or commercial rivalry will precipitate the long-expected struggle for supremacy between Chile and the Argentine Republic—a struggle which will end by giving the numerically inferior, but in more essential respects superior, race the hegemony of all the territories included in the temperate zone of South America.

And North American invaders of that zone may yet be destined to share the experience of the conquistador Valdivia, who pursued a prosperous march along the shores of the Pacific, till he crossed the Rio Rapel, where he encountered the border-guards of the Araucanos. The same warriors who had stopped the invasion of the Incas, here attacked his camp with a resolution which soon obliged him to recross the river to save his force from total destruction. "Not one of the Spanish commanders," says the historian Corrasco, "had ever witnessed a similar attack. Many of them had seen hard fighting before, having served both in Morocco and Italy, but the natives of this country appeared to know neither fear nor fatigue."

(TO BE CONTINUED.)

LIVING THE TRUTH.

THEY are but few who do the thinking of mankind, and the great masses are led by the few sometimes in the right, sometimes in the wrong direction. It matters little whether this is to be regretted or not, it remains a fact and must be faced. Yet this state of things makes every independent thinker the more valuable. Every man who is an independent thinker is a power in his sphere, and will contribute a share to the further evolution of thought in humanity.

We have met here from the far East and the far West, from the North and from the South to strengthen independent thought, to encourage thinking people all over the country, to arouse the indifferent and to gain the assistance that is needed in the great work of progress; for the harvest truly is plentiful, but the laborers are few.

We have come here not only to enjoy in a prophetic vision the ideal future of mankind, to consider how eventually thoughtlessness will be lessened, how ignorance and superstition will disappear, but also to work for that ideal. And it is a serious, a great, a sublime undertaking to which our efforts are devoted. We have come here to meet some of the thinking people of our country, some of those who work for the liberation of humanity from the fetters of error and indifference.

I do not hesitate to say that indifference is worse than superstition. I am always glad to meet a thinking man who is earnest in his defense of some old creed, if he is only honest. However much I may differ from his views I shall always treat him with the respect due to sincerity. Difference of opinion must never induce us to set aside justice; and after all a man who is sincere and has an independent conviction, even though his conviction be utterly wrong, does a greater service to progress than the indifferent man who will always belong to that party which happens to be the fashion of the day. Indifference more than error hinders progress.

I see the thinkers of mankind, few though they are, divided into two camps. The champions of the one trust in progress and work for constant amelioration; the champions of the other believe that innovations are extremely dangerous, and the best thing for humanity would be to remain stationary. Those of the latter class will concede perhaps that in the domain of industry and in the sciences progress must be made, but they do not believe in the progress of religion. Their religion is to them perfection, it represents in their minds absolute truth, and progress of absolute truth, progress of something that is already perfection, is, as a matter of course, gilding refined gold.

The battle waxes hot between the two parties, the former is strong through its alliance with scientific aspirations, but the latter is still in the majority. It is in possession of the great mass of indifferent people; and the champions of progress may often become despondent so as to give up all hope of a final victory. Ignorance seems stronger than knowledge and folly more powerful than wisdom. In a moment of such despair Schiller is said to have exclaimed: "Against stupidity fight even Gods in vain."

Who among us when confronted with unconquerable superstitions, has not had such sentiments at one moment of his life or another? And now I ask, can we know which party in the end will be victorious? Can we know the means by which alone a victory is to be achieved? Let me in a few words indicate the answer which I trust is very simple in the general plan of its main idea, and yet so very complex in its ap-

plication that we could philosophize on the subject as long as we live. Indeed, mankind does philosophize on the subject and has never as yet got tired of it. And I suppose it never will, for here lies the object of all science, of all knowledge, of all philosophy.

What will conquer in the end? Truth will conquer in the end. By what means will truth conquer? By being truth, or in other words by morality. That party will conquer, be it ever so weak in numbers, be it ever so badly represented, that is one with truth. But it is not sufficient merely to know the truth. Truth must be lived.

Only by living the truth shall we be able to conquer the world. Therefore it is necessary to recognize the all-importance of morality. The ethical problem (as I have often said on other occasions) is the burning question of the day. To know the truth, to preach the truth, and also to denounce the untruth of superstitions is very important; but it is more important to live the truth.

If you have two men, one of whom knows the truth but does not live it, while the other lives the truth but does not know it; who must be regarded as nearer the truth? Certainly he who ignorant of the truth lives it, and not he who knowing the truth does not.

What is truth? Truth is agreement with the facts of reality. Truth accordingly is not a mere negation of untruth, not a mere rejection of superstitions. Truth is positive, it is the correct recognition of facts as well as of the laws that live in the facts and have been abstracted therefrom by science. Morality is the agreement of our actions with truth, and the most important truths for the regulation of men's actions are the laws which rule the relations between man and man forming the conditions of human society.

The strength of the many organizations that still hold to antiquated superstitions lies in the fact that after all they try their best to obey the moral laws. And the weakness of many free-thinking persons as well as organizations, lies in their neglect of ethics. They do not feel the urgency of demanding strictness in morals; they are perhaps not exactly immoral but they are indifferent about the claims of morality.

Dr. Westbrook, the honored President of this body, has the great merit of having pushed the ethical question to the front by proposing a prize for the best practical guide in establishing secular morality, i. e., morality not based upon supernatural revelation but upon the facts of life. It is in this spirit that he presides over the Secular Union and may he long live to advance the work he has begun!

Here lies the secret of success. The church has grown into existence and has attained its power because it was the ethical teacher of mankind in the

past. On the one hand it appears that the church refuses to progress, and on the other hand progressive thought has heretofore too much neglected to become practical or in other words to push the moral applications of truth.

We stand now before a crisis: Either the churches will reform; they will cease to believe in superstitions; they will acknowledge truth and the correctness of the scientific methods of reaching truth; in one word they will become secular institutions, institutions adapted to the moral wants of the world we live in; in which case they will remain the ethical teachers of mankind; or those institutions which represent progressive thought and have recognized truth and the rational means of reaching truth, will more and more inculcate the practical applications of truth; and if they do, they will become the moral teachers of mankind.

Truth must conquer in the end; but knowing the truth is not as yet sufficient; it is living the truth which will gain the victory.

P. C.

SCIENCE AND ETHICS.

TO BASE ethics on facts, to derive the rules of our attitude toward facts from experience, to shape our ideals, not from the airy stuff of something beyond the ken of science, but in accordance with laws derived from reality, this is (as I said in my first lecture) the line of demarcation between the old and the new ethics. Mr. Salter by rejecting science places himself upon the antiquated ground of intuitionism. I know that he rejects the old fashioned supernaturalism, but indeed his view (if expressed with consistency) ought to appear as supernaturalism. He says:

"Conscience is not knowledge,—for knowledge is of what is, and conscience is the thought of what ought to be."

And in other passages (p. 304):

"These moral laws of our being are so close and constitutional to us that the very existence of virtue is bound up with a recognition of them."

"Who can give a reason for the supreme rule? Indeed, no serious man wants a reason. The supreme command appeals immediately to the human mind; it is an assertion of the human mind."

"Amiel, 'the sweet-souled Genevan mystic,' says: 'It is not history which teaches righteousness to the conscience; it is conscience which teaches righteousness to history. The actual is corrupting; it is *we* who rectify it by loyalty to the ideal.'"

Might these expressions not occur in any work of an intuitionist? Is not in this way, by considering conscience as something that lies beyond the pale of science, beyond the knowable realm of natural facts, mysticism introduced as an essential element of morality? And indeed, Mr. Salter does not approve of it that "morality is thought to be without mystery." There is a dualism lurking in Mr. Salter's ethics, as

if the moral order were something radically different from the order of this world:

"Though it [morality] warns us and commands us, it does so in that supreme act in which we warn and command ourselves: it is the utterance of the God in us, of the 'prophetic soul' in which we all share, and signifies that we are part and parcel of another order of things than that which we can see and handle, and are rooted in somewhat firmer than the earth, and more ancient, more venerable than the heavens."

There is no objection to defining morality in poetical terms as "the utterance of God" (i. e., the immanent God) or as the "prophetic soul," but it is not another order of the world. Morality is based upon, it is creating a better state of things by conforming to the order of this very same world in which we live.

The moral law is not considered by Mr. Salter as the highest natural law, higher than other natural laws; but it is said to be above or outside of nature. Mr. Salter says:

"The moral sentiment dwarfs Nature, it goes out to that which is beyond Nature."

In consistency with his view that the moral sentiment goes out to that which is beyond nature, Mr. Salter rejects science as a basis of ethics. He says:

"Agnosticism is no more than a confession of the limitations of our knowledge. But what we do not know is hardly a basis for action. . . . Nor is science, teaching us positively what we do know, a sufficient guide for us. I will yield to none in my admiration and wonder before the world which science has revealed to us. How has space widened and time grown infinite, and how does one law seem to hold in its grasp the mighty movements of systems and the least tear that trickles down a child's face! It is a universe, majestic, solemn, in the midst of which we live, and it would seem to suggest to us great and solemn thoughts as to what our own lives should be."

"But when I turn from Nature to consider human life and the order of human society, my reverence in one way lessens rather than grows deeper. The science that reports faithfully, philosophically the varied facts of our human existence is not altogether a pleasant page to read. History, which is one branch of the science of man, tells of animalism, of brutal selfishness, of towering wrongs, of slow returning justice, often of a blind infuriated justice, that punishes the innocent and leaves the guilty free. And observation—statistics, which is nothing else than scientific observation—reveals almost as many things that ought not to be as things which should be. Statistics of crime are just as much science as would be statistics of peace and order,—statistics of prostitution as truly scientific as those of family purity, of poverty as truly as those of comfort and competence."

"What science teaches must invariably be accepted as fact, but it may none the less provoke moral repulsion and rebellion. We may say to some of the facts, 'You have no right to be!' Yes, the very end of our scientific observation may sometimes be to render such observation in the future impossible,—that is, to destroy the facts. Plainly, then, science is not ultimate. It tells us simply what is; it tells us nothing of what ought to be. What ought to be,—that is reported to us by a higher faculty than that of scientific observation; it is an assertion, a demand of the conscience."

"Here, then, is to my mind the true basis of our movement,—not the old religions; not religion itself, in the popular under-

standing of that term; not agnosticism, though as matter of fact some of us may be agnostics; not science, though the facts of science, every one of them, should have our recognition. It is something deeper and more ancient, I might say, than any of these: it is the rock of conscience, the eternal laws that announce themselves in man's moral nature. . . . Conscience, in a word, ushers us into an ideal realm."

The ideal realm is nothing that stands in contradiction to the facts of life. Ideals which do not conform to the laws of nature derived from facts, are mere dreams.* Ideals must be based on science, in order to be realizable; and ideals that are unrealizable, impossibilities, are mirages, but not ideals.

Mr. Salter has a wrong and too limited conception of science; he takes science to mean knowledge, viz., a mere understanding, of facts, but he excludes from his definition "our judgment upon facts." He says:

"In the strict sense of the word, science—the science of man as truly as any other—knows nothing of right and wrong, but only of what is; of facts, and the law of their connection. To the pure understanding, virtue and vice do not exist. These notions arise in virtue of our judgment upon facts; and the organ of that judgment is other than that by which we learn of and explain the facts themselves: men call it Conscience."

The sole purpose of science is the application of science. As Mr. Salter rightly says: "For man is not only to know, but to do and to achieve." We study nature, and science exists for doing and achieving. In order to do and to achieve we must know. Knowledge is the basis of any achievement, not only in practical business for manufacturing, invention etc., but also for moral life. There is no conscience without knowledge, there is no *Gewissen* without *Wissen*. Conscience is not a faculty that exists prior to knowledge of facts, but it develops from a comprehension of facts, from a knowledge of the consequences of human action. Mr. Salter says (p. 37):

"It is strange, when we bear in mind the ideal nature of morality, to hear that morality must be based upon facts. Morality is not really a question of facts, but of the right of facts to be, of their correspondence with a standard of the mind. . . . Base morality on facts? Which facts? There are innumerable facts, an induction from which would only give us immorality. The good facts, then? But plainly, this is moving in a circle. In truth, there is nothing on which to base morality. We do not so much find it, as demand it in the world."

Can anyone derive from evils and the consequences of evils, rules of iniquity? The facts that ought not to be, speak loud, very loud; they speak with no uncertain voice, and morality is preached mainly on account of such facts as, like the innocent Abel's blood, cry out to heaven! Suppose that a murderer has no conscience to guide him, will not the results of his crime teach him a most impressive lesson? The results of his crime will set him thinking, so that he will ask himself: Was it right to slay my brother? The

* See The Ethical Problem, pp. 19 and 23.

evils of immorality and the consequences of these evils are a most powerful stimulus for asking the question what is right and what is wrong? Man has to face the facts of life and has to find out the right way of salvation by experience. His experience appears first as a dim instinct, often erring and sometimes hitting upon the right thing. Yet there is no other guide, no supernatural revelation, no intuitional faculty (in the sense of intuitionism), no direct commands that might 'appeal immediately to the human mind.'

Mr. Salter may not call himself an intuitionist, but he takes the standpoint of intuitionism. He does not call his world-conception supernaturalism; but it is supernaturalism. While the Unitarians, following Theodore Parker, are seriously at work to "rationalize religion," while many Jewish rabbis recognize the truth of monism and therewith acknowledge the immanence of God, the leaders of the ethical societies remain upon the dualistic standpoint of extranaturalism.

It is true the leaders of the ethical societies have dropped the old fashioned terminology of supernaturalism. Yet their ethics is as supernatural as the old conception of an extramundane deity. The idea of God is replaced by the ethical command, but the latter has remained as mysterious and transcendent, extramundane and extranatural as was the Jehovah of old-fashioned dogmatism.

P. C.

REPORT OF THE NATIONAL CONGRESS OF THE AMERICAN SECULAR UNION.

THE National Congress of the American Secular Union met last Friday, October 31st 1890, in Portsmouth, Ohio, and remained in session till Sunday night. Dr. R. B. Westbrook of Philadelphia acted as President, Miss Craddock as Corresponding Secretary, and both were re-elected for the following year. The Opera House, where the Congress was held, was crowded on all occasions, perhaps with the sole exception of Saturday when the business meeting was held; and we can say without hesitation that the whole convention was a great success.

On Friday Mr. Treutheart, President of the Secular Union of Portsmouth, greeted the guests and explained in most sympathetic words the need of secular reform in and out of the churches. Judge F. C. Searl read a poem of welcome, and Dr. Westbrook replied to both. Miss Ida C. Craddock delivered an address on "The Methods of Extending the Work of the Secular Union." She spoke of the different parties in the Union, the Radicals and the Conservatives, and proposed plans for educating the young. It must be remembered that the work of the Corresponding Secretary is of great importance as the Adjutant-General of the President and as the connecting link among all the Unions over the Country. Upon the good tact and circumspection of the secretary, to a great extent, did and will depend the fate of the whole organization. Miss Craddock displayed great ability and a woman's quick wit on all occasions.

On the succeeding days, addresses were delivered by Dr. Westbrook, who discussed the question: "Shall the Bible be read in the Public Schools?" He presented the negative of the subject with great vigor and competency. Mrs. M. A. Freeman of

New York spoke on the Battle for Bread. Her address was rather an unfolding of dissolving views than a lecture and, considering the beautiful language, might fitly be called a poem in prose. Mrs. Lucy N. Coleman, the well-known abolitionist, related reminiscences of days long past. She was the woman Nestor of the Congress. She did not deliver addresses but talks, and there was no one in the audience who did not gladly listen to the words which welled like a never-ceasing spring from her lips, refreshing every heart; for her whole deportment and the sound sentiment of her utterances possessed the charms of womanhood which in advanced years surpasses even the beauty of youth.

Other addresses were delivered by Dr. Henrietta P. Westbrook, wife of the President, Judge Waite of Chicago, Thaddeus B. Wakeman, Miss Voltarine de Cleyre, L. K. Washburn, of the Boston *Investigator*, Charles Watts, and John R. Charlesworth. A short address by Dr. Carus is published in the present number. The discussion of ethical problems apparently claimed the greatest interest. Mr. Wakeman spoke impressively on the new world conception which has to become a new religion. Mr. Watts with enthusiastic fervor preached as a priest of this new religion, and although disclaiming all belief in prayer finished with a poetical orison to Nature's God, that carried the audience.

Miss Voltarine de Cleyre, who was introduced by the President as one of the most talented and at the same time most radical young ladies of the country, discussed the Ethical Problem with great seriousness and philosophical depth. The results of thoughts which she presented would have been more startling, if the audience had been able to follow her argument. She presented and criticized mainly two views of ethics; first, the egoistic interpretation of ethical impulses, and secondly the happiness theory of a refined hedonism. She rejected both these pet theories of the present age and replaced them by what might be called the ethics of natural necessity. Miss de Cleyre professes to be an anarchist, but in her lecture she dealt the deathblow to that kind of anarchism which is based upon the sovereignty of the ego. She understands by anarchism the abolition of rule, and demands the substitution of administration and regulation. The passages in Miss de Cleyre's lecture on the littleness of the "me" in comparison with the great universe, were most pointed and effective. Not in the "me" must the basis of ethics be sought, but in the universe. What is your little "me," she asked, but a bundle of traditions? And it grows whether you will or not, not according to your pleasure, or in consequence of your yearning for happiness, but because it must.

It must not be forgotten that among the guests were representatives, also, of the old creeds. Professor I. O. Corliss, the Corresponding Secretary of the National Religious Liberty Association, read an address in which from the Christian standpoint of the latter-day adventists he demanded the abolition of any Sunday-enforcing regulations, and Dr. David Phillipson, a liberal and well-known Rabbi of Cincinnati, delivered an eloquent address in the defense of the Bible, which was most enthusiastically received by this radical audience. He presented the other side of the question in opposition to Dr. Westbrook. But however different both views appear, they are not irreconcilable. Dr. Westbrook confined his objection solely to the indiscriminate use of the Bible as a schoolbook, declaring that the children were provoked by the methods employed to read the passages skipped; while Dr. Phillipson did not defend the orthodox interpretation put upon the Bible but praised it for its literary, historical, and ethical importance.

CURRENT TOPICS.

A VERY entertaining book just published is "The Art of Authorship," a collection of literary prescriptions by 178 writers, who have won success as poets, novelists, or historians. No doubt, it will be eagerly bought by ambitious persons who aspire to lit-

erary fame. Their disappointment will be heavy when they learn from the testimony of so many expert witnesses that there is no "Art of Authorship," and that the power to write anything worth reading is a gift, strengthened by study, and polished by work. The prescriptions were cleverly obtained by an inquirer who supposed that the mystic ingredients of a history, novel, or poem, could be procured as easily as a recipe for making piecrust. Had he found the formula for genius, we could bind a boy apprentice to a poet or a novelist, as confidently as to a blacksmith or a tailor. Unfortunately, he failed; but like Boswell, he has given us a book full of delightful egotism. To catch 178 authors with merely a hook and line, using a little flattery for bait, is a performance greatly to be praised, because the innocent victims when they responded had been beguiled of all suspicion that they were "interviewed" for print. It is well that this fisher for gudgeons caught so many authors, but it would have been better had he caught the "Art" of authorship. What a prize would have been won, had some skillful angler of the sixteenth century captured Master William Shakespeare, and extracted from him the knack of making Hamlets and Othellos; but the very speculation leads us into the Slough of Despond, where the frogs croak in our ears for ever. "A poet is born; not made."

There is fine character study in that "Art of Authorship," and it is a consolation to discover that the great writers, even the "immortals," are but mortals like ourselves, all subject to the same hopes, and cares, and vanities. For instance what a fine quality of spirit sparkles in the reply of Marie Corelli, a novelist not yet much known to fame. The searcher for the "art of authorship," was thoughtless enough to ask if she had given herself any literary training "in early life," and he got this well deserved rap on the knuckles for his awkwardness: "I think it is but fair to tell you that I am in early life still: I suppose you would not call a woman of four and twenty very old." The mistake about her age was easy enough to make, for Miss Corelli moralizes far beyond her years; more like the bearded Plato than a woman of twenty-four. Nothing can be more patriarchal than the following rebuke, "To write for the sake of gaining a livelihood only is a terrible mistake, one that hundreds of authors commit every day." True, alas too true; and the only apology for the reprehensible practice is that even the immortals must have bread. The worm who spins the silken thread is entitled to his mulberry leaf; and the novelist who spins yarn of another kind, must have his mulberry leaf also, or the yarn will be unspun. There is high-toned satire, 18 carats fine, in the boast of Miss Corelli: "I write for the love of writing, not for the sake of money or reputation—the former I have without exertion, the latter is not worth a pin's point in the general economy of the universe." That latter sentiment is nearly cynical enough for Diogenes himself; and it excuses the mistake so innocently made about Miss Corelli's age. Any man or woman who can scorn the love of money and of reputation too, ought to be at least four times twenty-four years old.

The answer of Professor Huxley looks very much like his portrait; there is such rugged independence in the lines. He says, "I never had the fortune, good or evil, to receive any guidance or instruction in the art of literary composition. It is possibly for that reason I have always turned a deaf ear to the common advice to 'study good models,' to 'give your days and nights to Addison,' and so on." Then he advises the young author not to ape Addison or any of the great writers, but to make his own style, as they made theirs. It may be a surprise to Professor Huxley to find from the testimony of this book that some good writers have modelled their style on him. As great a man as Haeckel says, "I have not even read much; mostly Goethe, Lessing, Humboldt, Schlei-

der, Huxley and Darwin. I have always endeavored to acknowledge Nature as the first and best mistress." John Strange Winter testifies thus: "All work in the world is no use without the little touch of divine genius, which is born, not made; and without the work and care, and thought, the genius is like the talent hidden in a napkin." With a twang of self righteousness, perhaps involuntary, R. M. Ballantyne says, "The power with which you credit me, whatever may be its value, I regard as a direct gift from God." James Russell Lowell expresses the opinion that "Mao's style is born with him"; and this also appears to be the belief of H. H. Boyesen, who says, "The gift of style is largely inherited and instinctive." He is reinforced by Thomas Wentworth Higginson, who got his genius by inheritance, as a man sometimes gets a farm. He says, "I came to literature by heredity." Julian Hawthorne must have thought the subject under enquiry was the quantity, and not the quality of words, and how to fill the greatest number of pages in the shortest time, for he boastfully says, "The other day I wrote a novel of 70,000 words in less than three weeks." This fabulous performance equals the feat of the three Irishmen, who testified that half of them came over in one ship, and half in another; and even that in less Hibernian than the following statement which appeared lately in a London paper: "Yesterday morning a two-days convention was held in Exeter Hall." That novel written the "other day in less than three weeks," must have been fearfully and wonderfully made.

The importance of the exact word in a sentence is vividly shown by Mark Twain, who tells us that "The difference between the *almost* right word and the *right* word is really a large matter. 'Tis the difference," he says, "between the lightning bug and the lightning." Mr. R. D. Blackmore, the author of Lorna Doone, seems to think that the right word is often the result of accident, for he believes that "A good deal depends upon luck, as well as care." There may be a grain of truth in this, but the contingency is not to be depended on, except by those who write novels of seventy thousand words in three weeks. Of course, it was to be expected that there would be much difference of opinion among so many witnesses as to the value of the great literary "models." The keenest controversy is excited by Macaulay, whose literary style is enthusiastically praised by some, and sharply criticised by others. His partisans are in the majority, although Aubrey De Vere says, "I cannot sympathize with the admiration often expressed for Macaulay," and George Meredith speaks of "the wonderful sweep of a sentence from Gibbon, from whose forge Macaulay got his inferior hammer." To make his criticism more impressive, he continues thus: "Warn against excessive antithesis—a trick for pamphleteers." This, though intended for Macaulay, will fall harmless, because one charm of his beautiful style is the felicitous use he makes of antithesis. If, in the exuberance of his fancy, he sometimes carries antithesis to excess, it is the excess of light. Among the authors who testify in "The Art of Authorship," the witnesses for Macaulay have greater fame in letters than those on the opposite side. For example, Edward A. Freeman, the historian of "The Norman Conquest," says: "I have learned more in the matter of style from Lord Macaulay, than from any other writer living or dead. Nobody ever had to read a sentence of his twice over to know what he meant; that I guess is the reason why every conceited young babbler thinks it fine to have a fling at him." Will Mr. George Meredith kindly make a note of that?

Hume, as a model of literary style, has many admirers among the one hundred and seventy-eight authors. This admiration is deserved, for the style of Hume is a marvel of clearness and condensation. Let us compare his description of a certain Puritan trait, with Macaulay's reference to the same characteristic. Hume

says, "Even bear baiting was esteemed beathenish and anchristian; the sport of it, not the inhumanity gave offense." Here the antithesis strikes the mind with sudden and concentrated force, but let us examine the manner in which Macaulay says the same thing. "But bear baiting, then a favorite diversion of high and low, was the abomination which most strongly stirred the of the austere sectaries. The Puritan hated bear baiting, not because it gave pain to the bear, but because it gave pleasure to the spectators." Now, there is the same thing said in two different styles, and the test of their comparative excellence is the individual taste of the reader. How he likes to have his history served up to him is for himself alone to say. Rhetorical rules cannot decide the question for him any more than they can determine how he likes his breakfast done. That the bear baiting statement as elaborated and adorned by Macaulay, is more popular than the ungarish antithesis of Hume, is proven by the fact that Macaulay's version is continually quoted, while that of Hume is very seldom heard. For all that, many competent critics will prefer the shorter and more compact sentences of Hume.

M. M. TRUMBULL.

NOTES.

We have received a copy of the Constitution of the Brotherhood of Moralists organized at Hannibal, Mo., on the 29th of May, 1887. The objects of the Order are, (1) "to promote the honest and fearless search after all truth that pertains to the overthrow of superstition and the moral elevation of man; (2) to oppose by rational appeal, the following social and political evils: Dishonesty, licentiousness, intemperance, polygamy, free-love, anarchy, and communism; (3) to eradicate from the minds of as many as possible all beliefs in so-called divine revelations, special providences, spirit-manifestations, witchcraft, prophecies, and miracles, as vain delusions of superstition and the sources of sectarian hatred and strife. Its aim, therefore, is to "inculcate the principles and promote the practice of rational morality." An appeal is made by Miss Ella E. Gibson of Barre, Mass., for contributions for the support of an eight-page monthly paper, of which she is appointed editor, to be devoted to the interests of the "Brotherhood," a term which here has no reference to sex.

A series of lectures is to be delivered by Mr. Alexander Johnson before the Study Class in Social Science, in the Department of Charity, at the Plymouth Institute, Indianapolis, during the Autumn, beginning with November 3. Mr. Johnson is Secretary of Board of State Charities and was invited to give the lectures before the Chicago Institute. They have been remodeled and treat of matters of great importance. The first lecture will deal with "Theories and Definitions" of Social Science and Charity. The subjects of the succeeding lectures comprise "Ethics and Economics," "Poverty and Pauperism," "Subjects, Agents, Motives, Ends," "Public Charity—The State—The Country," "Quasi—Public and Private Charity," "The Church in Charity" and "Associated Charities." The Plymouth Institute is intended "to give young men and women who are busy during the day an opportunity to study into the things that make for a larger life," in line with the "University Extension" movement in England, and it provides numerous classes and lectures for the advancement of its members.

We have received the following numbers of *The Humboldt Library* (The Humboldt Publishing Co., New York), Nos. 117 and 118, "Modern Science and Modern Thought," by S. Laing; No. 121, "The Modern Theory of Heat, and the Sun as a Storehouse of Energy," (illustrated), by Gerald Molloy, D. D., D. Sc.; No. 120, "Utilitarianism," by John Stuart Mill; No. 124, "Quintessence of Socialism," by Professor A. Schäffle; No. 125, "Darwin-

ism and Politics," by David Ritchie, M. A., and "Administrative Nihilism," by Thomas H. Huxley, F. R. S.

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32. Evolution and Social Reform: IV. The Scientific Method. By Daniel Greenleaf Thumson.
33. Asa Gray: His Life and Work. By Mrs. Mary Treat.
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THE RINGS OF SATURN.*

BY DR. M. WILHELM MEYER,

DIRECTOR OF THE URANIA SOCIETY OF BERLIN.

THE most marvelous of all the wonders of the broad heavens is Saturn with its rings. From our very first experiences made with the eyes of childhood, we are so universally accustomed to see everything about us tend with irresistible force towards the ground, that at first thought we cannot comprehend at all how the millions of heavenly bodies that fill the firmament about the earth can possibly persist unsuspended in empty space. Indeed, our experience of the universal vertical descent of bodies has become so inseparably flesh and blood with us, that there are a great many otherwise perfectly normal people who cannot understand how it is that our colored brothers in Asia and Australia, who walk about upon the earth beneath our feet, are not precipitated headlong into the heavens; whereas our colored brethren on their part can naturally also not understand why it is that we are not dashed against the ceilings of our rooms, as soon as twelve hours afterwards the tables are turned, and in consequence of the daily rotation of the earth we come to stand below and our fortunate antipodes are handsomely brought to the top.



SATURN AS SEEN FROM ITS SATELLITE DIONE.

But in the case of Saturn we see surrounding the ball of the planet an enormous ring, suspended in space without any support whatever. Although indeed with the expenditure of much thought we have come to understand that the force of attraction which causes the fall of bodies to the surface of the earth, does not universally act from above to a direction be-

neath, (for in the universe there is neither an above nor a beneath,) but that the earth attracts us and things on it just as a magnet does a piece of iron; and notwithstanding the fact, further, that we have also come to the knowledge that beyond our planet other terrestrial worlds exist which with the same rights as our world also exert a power of attraction on the things about them, we still do not understand how this stupendous ring-shaped body which gives throughout the impression of a solid mass, and which according to the statements of astronomers is twenty-two times larger in diameter than the earth, is not instantaneously precipitated upon the planet and shattered into a thousand tiny fragments.

As a matter of fact, now that the actual form of the ring of Saturn has been more accurately investigated by the perfected instruments of modern optical science, this state of things has given our acutest thinkers considerable difficulty. Let us look into the problem a little more closely before we attempt a solution.

The second drawing accompanying this article represents our strange planet as it appears through good telescopes; and I may add here that the appearance of Saturn is materially different in different years, but that the present period is a very favorable one for the study of the rings. For in the course of the planet's revolution about the Sun the ring of Saturn, which, like the axis of the earth, retains a constant fixed position of inclination, assumes very different situations with reference to our line of vision. Often, as at present, it distinctly exhibits to us its broad side; at other times we look directly upon the sharp edge of the ring, and are then unable to make out all of its interesting features. Since Saturn performs one revolution about the Sun in every twenty-nine and a half years, all the different phases of the ring accordingly are repeated with reference to us within that period of time; and while now it presents to us the surface of the one side, namely, the southern side, it will exhibit to us next year its narrow edge, and the surface of the other side will in years following grow more and more distinctly visible. But the southern side, which we now see, will not be again visible in its best position until the second decade of the next century. The time is therefore yet favorable. Let us employ it to advantage.

* Translated from *Nord und Süd*.

THE OPEN COURT.

The first thing we observe is, that the shading of the ring in its different parts considerably varies, and that the ring is unmistakably composed of several rings lying one within another. The separation of three of these rings is very plainly distinguishable. Of these the middle one is the brightest. Extending in from the latter towards the ball of the planet, the hazy form of the so-called "dusky ring" is visible, exhibiting a partial transparency; as can be distinctly seen in the cut at those places where the ring sweeps across the spherical surface of the ball and affords through itself a shimmering glimpse of the contours of the latter. Interiorly, moreover, this ring of haze is very sharply outlined against the dark background of the heavens, and becomes lost though not very gradually in the direction of the body of the planet, from which a space separates it about equal to the distance between us and our antipodes.

In the bright middle ring not less than two earths could be placed side by side.

Beyond this central ring, at its sharply defined edge, a broad chasm opens precipitately up. This gap is estimated to be about thirty-three hundred miles in width. It is called the Cassinian division, after the man who first discovered it two hundred years ago. Beyond this division, finally, a third, smaller ring is observed, independently suspended, and encompassing the others. In this outermost ring is observed upon careful inspection still another line of separation, more indistinct and more hazy than the Cassinian line, which is the reason of its not having been discovered until much later, that is about fifty years ago. It is called the division of Encke, or, in the English usage, very characteristically, the "pencil" line. It divides the outer ring into two others.

In the centre of this curious and complicated construction, the spatial extent of which so greatly exceeds that of our own world, swings the enormous ball of the planet Saturn, a globe more than nine times larger in diameter than our world, and upon which, consequently, room for nine times nine, that is for some eighty times, more plants, animals, and human beings could be found than upon our planetary place of habitation. In the direction in which the ring extends, a slight compression is distinctly noticeable in the spherical form of the planet. This compression is equal in amount to one eleventh of the entire planetary diameter; that is to say, to constitute a perfectly spherical planetary form, there is lacking at each end of the diametrical line about half an earth.

Upon the surface of the planet a number of zones are plainly distinguishable, about as sharply marked as are, say, the painted ones upon our ordinary school globes. Especially noticeable, about the pole of the planet, is a bluish grey cap, which the God of Time

has donned; for at so great a distance from the life-giving source of light, the old fellow must be greatly troubled with frost and cold. In reality these divisions and belts must correspond to actual zones of temperature. For upon Saturn also it must be colder at the poles than at the equator, and consequently the clouds in the different divisions of the heavens must form into groups so diverse that seen from a distance they exhibit the striped appearance shown in the cut.



THE RINGS OF SATURN.

At the top to the right the planet casts upon the rings a distinctly visible shadow, which furnishes, moreover, striking information regarding the topographical conformation of these curious bodies. Each ring is, as regards itself, slightly arched; the curvature, in the direction of the great division, falling off very precipitately.

Our scenic picture represents the wonderful planet as it would appear to the human eye from its fourth satellite, Dione. Beyond the Saturnian system of rings, the separate features of which we have up to now alone considered, no less than eight satellites or moons revolve at varying distances about the pale globe and make its planetary world the most varied in the entire solar system. Its nearest satellite, Mimas, revolves about the ring at a distance that is only four times greater than the diameter of the earth; this satellite is accordingly eight times nearer to Saturn than our moon (the nearest heavenly body in our environment) is to us. This tiny, celestial body, which appears to us in our best telescopes as a mere vanishing point of light, and which is represented upon our scenic picture in the left prolongation of the ring almost at its apparently greatest distance from the same, speeds round its course, which is almost thirty times greater than the circumference of the earth, in less than a day.

The second satellite of Saturn, Enceladus, not much larger than the first, is visible in the drawing upon the disc of the planet a little beneath the ring to the right. The third, Tethys, is farther up to the left, apparently adhering to the ring, and likewise in tran-

sit across the surface of the planet. This satellite is noticeably larger than the first two, which fact is not wholly due to the nearness of the point of view which the artist has selected in placing us upon the fourth satellite Dione. The latter is some 239,000 miles distant from the centre of Saturn, which corresponds approximately to our distance from the Moon, or thirty diameters of the earth.

The relation of this point of view to Saturn is therefore the same as that between the earth and the Moon. Yet how infinitely different the aspect of the heavens there appears! A gigantic sphere, more than thirty times larger in appearance than the Moon to us, covers a large portion of the vault of the heavens, and surrounding it, suspended in space like a halo about some sacred head, stands that mysterious ring. Both globe and ring we see revolving with stupendous whirl about their common axis. Saturn itself completes its rotation in ten hours, the ring in thirteen.

Ever new wonders are revealed to our astonished eyes the more closely we observe this distant world. We discover that the rings are extraordinarily flat. If we were to construct a model of the size of our drawing we should have to make the rings out of thin paper, in order to obtain a faithful representation of it. It is believed that their greatest thickness is not more than 140 miles. Seen from the earth this thickness is not measurable. When the earth occupies a position with reference to Saturn, such that we look directly upon the edge of the rings, they disappear entirely for moderately powerful telescopes and only in the best do faint traces of them remain visible.

Inasmuch as the satellites of Saturn move almost in the plane of its rings, we should, if placed on them, always look at the edge of the rings; as the artist has very correctly represented. In fact every proportion of size as well as of illumination represented in the drawing, is founded upon calculations that are absolutely devoid of error. The foreground, of course, is the production of the artist: it is always allowed him to deviate from the actual truth in this respect, in order to heighten the effect of the whole by some fictional invention. What the real character of the surface of this satellite is, which in our best instruments appears to us only as a diameterless shining point, we have no idea whatever. It has been inferred from certain facts that its entire diameter does not exceed 560 miles, so that it measures in this dimension four times less than our own Moon. But it will have to be admitted that there may also be on Dione mountains and valleys like those that cover the surface of the satellite of the earth. But whether water and air, which the phantasy of our artist has bestowed upon this distant body, and which our Moon as we know

has not, are also really found there, I of course am unable to say.

But this is enough. We have now become acquainted with so great a number of curious facts having the perfect guarantee of science, that we shrink when examining them from any attempt at their explanation.

It is known that the rings of Saturn have been regarded as an accidentally intact remaining specimen of the primitive form in which nature eternities ago cast the matter that makes up its mighty creations. The Sun and the planets were once balls of vapor of a flat, compressed, lentiform shape. They revolved with such tremendous speed about their axes that the outermost portions at the equator could no longer keep up with them, and were thrown off as vaporous rings. The latter, once more rent asunder, collected their mass about some single point of each original ring, and in this way formed the planets with their moons. This is the well known nebular hypothesis of Laplace.

This hypothesis gives us at once the ring of Saturn, and to a superficial examination the question would thus seem to be disposed of. But upon closer observation this brilliantly illuminated formation with its countless, and in its greater features, constant details, can certainly not be regarded as an unsubstantial nebulous concretion. At the farthest we could only consider as such the innermost dusky ring, which is, as we have seen, partially transparent; although its stability militates against even such an assumption. But how out of the original nebulous ring this solid mass could have become so accurately and uniformly crystalized that in the course of millions of years it became a solid petrified ring, is utterly incomprehensible, since the nebulous ring could not have existed undisturbed by itself.

But no matter. There are multitudes of things in the world that we are not yet able to explain, and in the present instance especially we have to do with an occurrence that must have taken place eternities ago. Yet taking even the simple assumed fact that the ring of Saturn is a solid body, here too we fall again into inextricable contradictions. It has been calculated that upon the earth at least there is no material that is so firmly solid as possibly to resist the many opposing forces that are acting in the interior of a revolving ring of this kind. It would be broken into a thousand fragments. And it has been demonstrated beyond a doubt that the material of which the Saturnian system was constructed, is much less dense than the material of the earth. Finally, the slightest displacement of the ring from its position of equilibrium would inevitably cause it to be hurled upon the surface of the planet. Such slight disturbances of equilibrium occur

everywhere in the universe. Still, the ring of Saturn has not been dashed upon the planet! It cannot possibly consist of solid materials.

What now have we left to explain this phenomenon? The ring is not gaseous and not solid. Consequently it must be fluid. A veritable Okeanos such as the ancients conceived the medium encompassing the earth! What an absurd idea! A stupendous sea held unsuspended in the air above our heads, the waters of which are driven about in their circular orbit with such tremendous rapidity that no time is left them to plunge down like a dreadful deluge upon the planet!

The same reasons that militate against the possibility of a nebulous ring plainly make impossible the assumption of an aqueous ring. The eight satellites beyond it would produce necessarily in its waters still more powerful and complicated tidal phenomena than our Moon in the waters of the earth. The requisite equilibrium would be at once destroyed; the ring would collapse and either be precipitated upon the planet, or form, if its velocity were great enough, a satellite for the time being in a composite fluid state, which possessing all the capabilities of development, would then be in a condition to go through all the stages of cosmic formation like its other companions, the eight satellites beyond the ring.

Since this possibility also has been undermined by the merciless logic of mathematical analysis, the question of the physical constitution of the rings becomes really exciting. According to our ideas a thing must be either solid or fluid or gaseous. But the rings of Saturn are none of the three. Yet something manifestly existent they are, and not merely an hallucination of our senses or ghosts of an imaginary world of possible four dimensions. Who will help us out of this intricate dilemma which almost makes us despair of our logic?

The solution is as easy almost and as striking as that in the story of the egg of Columbus. The rings, regarded as a whole, are, it is true, neither solid, fluid nor gaseous, but consist of millions of little solid bodies, each of which possesses the power of independent movement, like a particle of sand in a cloud of dust that has been stirred up by a desert wind. The rings of Saturn are really such clouds of stones, which are probably not larger than the stones upon our streets. But each single stone acts like a satellite. It is kept in a fixed path by forces of attraction and repulsion. This path must retain unchanged within certain limits the position it has assumed with reference to the contours of the ring. This is why the contours themselves remain unchanged. Of course slight disturbances of the very kind that make the stability of the ring as a whole impossible, displace at times a

number of these paths; the course of all heavenly bodies indeed being subjected to alterations of this kind. But inasmuch as each point of the ring is movable with regard to itself, the equilibrium of the whole cannot be at all disturbed in this way, but only certain individual features of the ring will appear changed in consequence; as was indeed not long ago distinctly noticed. It was seen, for instance, that the so-called pencil line grew more distinct at times and then again grew very indistinct, and especially that its position with reference to the great division was temporarily displaced. The form of the ring is consequently by no means constant.

It may at first glance seem improbable, from this explanation, that the great contours of this ring-shaped cloud of dust have nevertheless for centuries remained the same. But it has recently been shown by exact calculation that the outlines of the ring are wholly determined by the attractions exerted by the eight satellites, and that indeed an entirely formless cloud of stones, if it were precipitated about Saturn, with the requisite velocity and at the same distance the ring now occupies, would necessarily assume in every detail the exact form that the rings at present possess. And accordingly this apparently so unfathomable problem is brilliantly solved.

And thus we recognize with wonderment that the heavens have fixed upon the brazen firmament the same symbol of eternity, the ring, which we human beings with a spirit of presentiment invented countless ages ago, to seal figuratively a lasting, happiness-promising, fruit-bearing union. In all places in which nature has seen fit to produce greatness of permanent stability, she has previously compounded her material and her force into a ring. In the most distant nebulae which we see flickering upon the borders of the universe, we often find this again; and the millions of little stars that in their totality produce the pale light of the milky way also unite into a brilliant garland of suns which encloses the great, immeasurable island-world in which our huge Sun but plays the part of one of those little stones in the ring of Saturn.

Let us therefore respect the ring on our finger. That which it tells us of the eternity that flows back within itself, we read in the eternal heavens; it is no empty dream. Though forms may change, one thing eternal remains—the harmonious order that created them.

THE GROWTH OF CONSCIENCE.

MR. SALTER in declaring that ethics cannot be based on facts, does not sufficiently appreciate the truth that experience actually teaches man. Man is educated in the severe school of natural facts, ruled by the unalterable law of cause and effect. Man's

whole existence and also his moral existence, his conscience is a product of this education.

Is conscience truly beyond the pale of science? If it were, we should have to accept the mysticism of its existence. Let us see how man's conscience originates.

A child observes the behavior of his parents, he listens to their instruction. He imbibes almost unconsciously with his first impressions the ethical nature of his mother. He notices the disdain of his father, for instance, when somebody told him a lie, he witnesses the contempt with which the liar was alluded to or thought of. All these many experiences are implanted into the soil of an inherited disposition which has come down from ancestors, swayed by the same motives and acting in a similar way.

Whenever a temptation arises to tell a lie, all the memories of former experiences that are of a similar nature will be more or less dimly awakened. Not the moral injunctions of his parents and teachers alone will be awakened, but also the evil examples of his bad comrades. There is perhaps one among them who lied and he succeeded with his lie: he extricated himself by a lie out of an awkward situation. Such instances are dangerous, for they corrupt the souls of the weak. Yet there is most likely also another instance of some one who heaped shame upon himself; the lie was found out and his plight was changed from bad to worse. In addition to these reminiscences other considerations awaken, such as: Even if the lie be not found out, I should in the future have to class myself among liars!

Conscience is by no means a simple and unanalyzable fact; it is not at all one single voice. Conscience is the combined experience of innumerable lessons, taught us by our teachers' injunctions and by observation of surrounding events.

Conscience is as little a faculty, having a special seat or organ in the brain as is for instance memory, imagination, or will, or any other abstract concept designating a special attitude, phase, or quality of the mind. The term "conscience" is an abstraction which covers a special group of psychical activities. Conscience in any other sense is a ghost, and to believe in it is a superstition. It does not appear that Mr. Salter adopts the ghost-idea of conscience, but it seems to me that he fails to see what conscience actually is. By conscience we understand the sum-total of all those impulses which serve for the regulation of human action. But there is no conscience that demon-like lives as a mysterious being somewhere in the abodes of the soul.

If man's life consisted of single and isolated moments, he would have no choice but to obey the impulse of the moment. Since his life consists of mo-

ments that are coherent forming all together a unity, and since before obeying an impulse that prompts to action, man can and will have to take into consideration other impulses, a choice is offered and he will naturally choose to follow that impulse which promises the greatest amount of pleasure. This is the beginning of rational action. Man's life, however, is not only a complex unity of many coherent moments, it is also interwoven with the lives of his fellow-beings. His actions affect others; and in whatever way he affects others, they will again affect him. The principles of his conduct are brought home to him. He may try to evade the consequences of his actions. Exceptionally he may apparently succeed, but not in the long run. He can as little escape the consequences of his actions as he can annul any law of nature. His life is intimately bound up with the lives of all his fellow beings; and sooner or later the truth will dawn upon him that his life is only the part of a greater whole. He will die, but the greater whole will continue, and the worth of his life will have to be judged in the end by that which remains of his actions after death. He will hear the men praised whose lives were a blessing to mankind, he will see their deeds continue working good and perhaps preserving their individual memory. He will learn to detest the man who leaves an inheritance of curses. The examples of the one as well as the other are most impressive and will contribute much in forming the conscience of man's soul.

Conscience does not well up from a mysterious source, but it grows from natural conditions, and for that reason it is not at all infallible. The conscience of a man well instructed and surrounded by noble examples, is different from the conscience of the uneducated. The conscience of a savage is often grossly mistaken. The most shameful acts are performed often against all natural inclinations not for the sake of gaining some personal advantage but solely because they are erroneously considered as "right."

In a certain sense it is proper to proclaim that man should obey the behests of his conscience; but conscience is not one special voice in man. It cannot be compared to a person, although figuratively we may call it the God in us, the prophetic soul, or the judge of our actions. It is not rounded off as are individual beings; but consists of many thoughts, the mean while accusing or excusing one another (Rom 2, 13).

One most essential part of man's conscience must be the sincere desire to criticize the different propositions of conscience. Conscience must not be blind, but its principle feature must be that of examination. And exact examination is not possible without knowledge. Thus it is an essential principle of a well directed conscience to aspire for more knowledge, for

more light, so as to be able to judge the better. A healthy conscience is constantly growing.

It cannot be denied, that upon the whole the voices of conscience, i. e., those impulses which lift man above the transient advantages and the petty egotism of his limited individual interests, naturally tend to preserve his soul; they find approbation by his fellow men and let him partake of the superindividual life of humanity. According to natural law the immoral element of humanity is constantly discarded as unfit to survive. However, the moral aspirations that tend to bring man into harmony with the conditions of his existence especially with the social relations of mankind, preserve his soul, and must in this way very soon acquire a greater strength than the lower desires of his animal nature.

The impulses of man's animal nature, hunger, thirst, acquisitiveness of all kinds, i. e., the impulses arising from the wants of his individual existence, appear to originate within himself, they are considered as expressions of his individual existence. But the superindividual voices of his conscience seem to come to him from the outside of his surroundings. They teach him to restrain the animal impulses and to set himself in accord with those conditions which are more comprehensive and more lasting than his individual existence. They bring him in union with that greater whole of which his individual existence is but a small part and a transient phase.

In this way the many promptings to action in the soul of man are mainly divided into two classes: the first we call egotistic motives; they urge man to follow his natural appetites; and the second we will call the superindividual aspirations; they keep man's natural appetites in check and teach man regard for the greater whole to which he belongs. The former appear to him as expressions of his individual will and the latter as manifestations of an outside power higher, nobler, and stronger than himself. The latter alone form that which is generally called conscience. Conscience, accordingly, is justly considered as invested with authority and its promptings appear naturally in the shape of commands.

The recognition of this authority for the purpose of regulating conduct in accordance with its laws, is the beginning of all ethics; and thus it is this authority which represents the basis of ethics.

The authority which finds expression in man's conscience, however, is by no means beyond the scope of science. We can investigate it and we must investigate it. The more we understand its origin, the better we shall be able to judge of its importance and the less we shall be liable to be guided astray by an erring conscience.

THE MISGOVERNMENT OF CITIES

AMONG the intellectual activities of Chicago, one of the most conspicuous is the *Sunset Club*, a social institution composed of a thousand men, drawn together, not by congenial taste and opinion, the principle and bond of clubs in general, but by the eccentric attraction of diversity in sentiment, and egoism in thought. In this club is represented every shade of difference running up and down the whole gamut of popular debate, and sounding every variety of belief concerning art, science, law, sociology, divinity, and politics. Although the club is limited to a thousand members, its terms of admission are very liberal. Any man of respectability and character seems to be eligible if he has brains enough to make an idea for himself, and individual sense enough to express it. It is the custom of the club to have a semi-monthly banquet, and when the feast is ended, the moral and mental faculties of the members are warmed into exercise by some "burning question of the hour."

The burning question for debate at the first banquet of the season was, "Needed reforms in municipal government," with Chicago as the terrible example and unspeakable villain of the play. The colossal wickedness of the specimen offered for examination so appalled the critics that they seemed consciously unable to do justice to the subject, and therefore made their arguments in the hopeful spirit of men firing buckshot against an iron-clad ship. It was Mrs. Partington again, sweeping back the high tides of the Atlantic ocean with her broom. Judge Altgeld, the principle speaker of the occasion, in utter despair at the situation, distrustful of a people who had themselves betrayed the trust of citizenship, actually abandoned the principle of representative government in the administration of city affairs, and appealed for safety to the one man power. Like the discontented people of Israel, he exclaimed "Give us a king"; not in those words exactly, but in these: "It is better to have one man who is personally responsible, even though known to be dishonest, than to have a board which is known to be honest at the head of affairs." A demerit to that count would be sustained by Judge Altgeld without the formality of argument, because he knows that the opposite of the statement is the political inspiration of the people known as the Anglo-Saxon race. He knows that they insist on making the laws themselves directly, as in the town meetings of New England, or by their representatives as in the State legislatures. He knows that the principle for which they are ready to die is that it is better to be represented in a parliament of thieves, than not to be represented at all.

That the city council should have degenerated into a "political machine" lubricated and run by "patronage," was in the opinion of Judge Altgeld, one cause of the accumulated corruption which makes the council chamber so unhealthy, and he recommended what he called the "New broom" remedy, or in other words, frequent rotations in office. The weakness of this plan is that new brooms cannot be depended on to sweep away corruption, so long as the corrupt constituencies furnish the brooms. No doubt the machine referred to is a very artful and dangerous combination of the mercenary and vicious elements, a labor-saving contrivance for the promotion of municipal jobbery and robbery, but the original cause of it lies in the moral foundations of the town itself, in the precocious development of a swamp into a rich and splendid city. Maggots are most abundant in the richest cheese, and great as the stealing is, it is less than the opportunity. What wonder is it that a lot of aldermen, most of whom suffered in early life from hunger, neglect, and privation, suddenly bribed with plenty, and surfeited with riotous living, succumb to that aldermanic malady known as fatty degeneration of the conscience! If their fall from virtue is great, look at their temptation. When the allied sovereigns visited England after the abdication of Napoleon in 1814, Field Marshal Blücher, who was there on the staff of

the King of Prussia, spoke in rapturous admiration of London. "It is a splendid city," he said, "a splendid city—to loot." So the invading army, now in the occupation of Chicago, exclaim with the old Field Marshal, "What a splendid city—to loot!" Considering the wealth of spoil in sight their moderation is amazing.

The speaker who followed Judge Altgeld wanted the city administration placed on an ethical foundation, for he said: "Take whatever system you please, unless you have it backed up by high-minded men, you will not have a high-minded city government." This was such an obvious truism that it met the unanimous approval of the club; but, unfortunately, it was extraneous to the subject-matter of debate, for the puzzle of the banqueters was this conundrum: While we are waiting till thieves become honest men, how shall we deprive them of the opportunities for theft; and how shall we protect ourselves against them while they are learning to keep the commandments? "Give us a business men's ticket," said the orator, "and help to put out bumper aldermen and rascals that try to make money by black-mailing corporations and giving away the franchises of the people." This was much applauded, and the sentiment of it was repeated by several debaters. "The city is a business corporation," said one, "and it ought to be run on business principles," and another one said, "I should like to see a mayor in Chicago who had backbone enough to take the position that the government of Chicago is a business organization for business purposes only, and not for politics." This well meaning reformer was innocently oblivious of the fact that one reason why corruption flourishes in the government of great cities is that their administration is "for business purposes only." A great city is not a business corporation; it is a social commonwealth. Unhappily, the mayors of too many great cities have had backbone enough to regard their dominions as "business organizations," using politics as a subordinate agency to promote "business purposes only."

Some of the debaters appealed for salvation to that vague and misty fiction called the "better element," meaning the "richer element," composed of those comfortable people who care little for civic duties, or any other duties outside the lines of "business." One of the speakers with a Prairie Avenue tone of thought exclaimed: "If the better element of either party were to spend as much time as they spend in the evenings of the Sunset Club—then the municipal government in the hands of such men would be all that could be desired." Another eloquent member indignantly inquired, "Is the city run in the way a business corporation should be run? No. And why? Because you gentlemen here, who are representing the so-called better element of this city, do not take the trouble to select the man that is fit to hold the chair." There was a delightful self-complacency in all that, for we like to be placed among the "better element," but the phrase is used as a false description of the richer classes, and it throws an undeserved reproach upon the poor. That was not the meaning intended by the men who used it at the Sunset Club; but it is a colloquial expression that comes easy to a speaker, and it often fails to represent his real sentiments. The better elements of society are so confusedly mixed through the various degrees of quality and callings that it is impossible to separate them by any visible test of money, houses, lands, rank, or influence. Only those whose lives are governed by the principles of justice, clarity, and toleration constitute the "better element," and these may be found among all classes, from the millionaire down to the poorest laborer, or up to him if the laborer is the better man. The history of the world gives evidence that government by the richer element alone has never yet been wise, or just, or merciful.

M. M. TRUMBULL.

CORRESPONDENCE.

SOUL FORM.

To the Editor of The Open Court:

I was very much interested in your article entitled "Revelation," also in another article which seemed to have been suggested by the first, entitled "Soul-Life and the Preservation of Form." Throughout your science is correct and your logic good, but in the end, you aim to establish a conclusion which does not seem to me to be justifiable from the premises stated, or from any premises which I can postulate; viz., that the soul is immortal because its form is preserved.

Probably, I do not know what the soul is, but I have always supposed it was the mind, and since the mind seems to be generated in the nervous system, especially in the brain as electricity is generated in a battery, I am driven to fear, that when the brain is decomposed the evolution of mind will cease. If mind is a force analogous to electricity or heat, then we may be sure its quantity considered as energy will never be diminished, even though it may be transmuted into other forces as the principle of the correlation of forces suggests as possible. If mind is but a portion of the universal mind or God, to which it returns on the death of the body, then I do not see how its form can in any way continue any more than I can conceive of the form of a wave as in existence after the sea has become calm. For obvious reasons the immortality of the soul is a most interesting question, which cannot be decided by mere faith and hope. If anything in favor of the universal hope can be derived from science I shall be glad to see it, and hence these hastily written lines.

H. D. GARRISON.

[We should not call God the universal mind, because that seems to imply anthropomorphism. According to the usual meaning of the term we cannot think of mind as being without a physical basis, as it has been called, i. e., without a brain. And who will think of God (the immanent God of Monism) as having a brain? Mind is not force, but a special form of force, viz., of brain-activity. The energy used up in brain-activity is of scarcely any amount and if it has been transmuted into other forms of energy, it ceases to be mind. That which perseveres is the continuity of form. The continuity of form in brain-activity is first the basis of personality, and secondly that of continued soul-existence or of immortality. Think of yourself as you were yesterday and as you will be to-morrow. In a certain sense you were, you are, and will be the same person. In another sense you are not the same as you were, for there are constantly little changes and modifications going on within you. In spite of all changes you continue to live and to feel yourself as being the identical person you always have been so far as your memory goes, and farther even, for the ideas that constitute your personality have a history which antedates your birth and their further existence and evolution is not concluded with your death. The elements and the true contents of your personality continue to exist in other persons, not otherwise than you of to-day are the continuance of you of yesterday.]

We do not desire to repeat ourselves, and therefore we refer to the editorial articles on the subject mentioned by Professor Garrison.—Ed.]

MR. MONCURE D. CONWAY AND ST. ANTHONY.

To the Editor of The Open Court:

I HAVE—in common with many friends of animals in England—read with much surprise the article from the pen of Mr. Moncure Conway on *St. Anthony's day* which appeared in your columns on June 12th. The object of the article is to prove that the present increased consideration for the lower animals is not

the outcome of Christianity and the teaching of the Bible, but is due to the effects of Darwin's teaching and the consequent fellow feeling with apes and dogs which makes us "wondrous kind." Mr. Conway says that after diligent inquiry he has not been able to assure himself that a single Society for the Protection of Animals existed in Europe or America before the publication of Darwin's "Origin of Species." If this is how Mr. Conway writes after diligent inquiry there is matter for speculation as to the value of his opinion on subjects where the inquiry has been absent altogether or at any rate not diligent. The facts are altogether the other way. Darwin's teaching had no more to do with the rise and progress of Zoophily than Tenterden steeple with the formation of the Goodwin sands.

The "Origin of Species" was published in 1859, the "Descent of Man" in 1871. The English Society for Prevention of Cruelty to Animals, now called the Royal Society for Prevention of Cruelty to Animals, of Jermyn St., London, was founded in July 1824. Mr. Conway could not have seen one of its reports without seeing on the title-page "65th or 66th etc., etc., Annual Report." A prominent member of that and other kindred societies writes me, "I have not here the needful papers but I feel sure that at least a hundred other (Foreign) Societies for Prevention of Cruelty to Animals and branches in the United Kingdom were in full work before 1859. Martin's Act was passed in 1822 and from that time the movement dates, not from Darwin's books which, in my opinion, have tended much more to enforce the cruel lessons of Nature and the absolute right of strength against weakness, than his theory of the brute origin of humanity has done to draw us closer in sympathy to the lower animals." From a wide acquaintance with the defenders of the rights of animals, I have no hesitation in saying that the overwhelming majority of such tender and merciful folk are drawn from the ranks of those who follow "the exploded superstition known as Christianity."

Mr. Conway says that "Buddha and St. Anthony have the honor of being the only prophets known to religious history as having shown any consideration for animals."

An examination of the Old Testament with the aid of Cruden's Concordance under the words "Beast" and "Cattle" would go far to rectify this error, and a perusal of the "Life of St. Francis of Assisi" would not be unfruitful. Even were it otherwise the whole genius of Christianity is in favor of tenderness towards the beautiful creatures of our Father's hand. The teaching of Zoophily is *implicitly* if not *explicitly* in the Bible, and I may profitably quote here the words of De Quincey used in connection with the subject of slavery. He says "Christianity throws herself broadly upon the pervading spirit which burns within her morals. 'Let them alone,' she says of nations; leave them to themselves. I have put a new law into their hearts, and a new heart (a heart of flesh, where before was a stony heart) into all my children; and, if it is really there, and really cherished, that law, read by that heart, will tell them—will develop for them—what it is that they ought to do in every case as it arises, though never noticed in words, when once its consequences are comprehended." Cruelty to animals is at war with the whole spirit of the Bible, it is not a case for a text here and there but of the genius of the whole. Imagine a chapter on experimental physiology by St. Luke, or a dissertation on vivisection by St. Paul. Mr. Conway compares Christianity in this respect with Buddhism much to the disadvantage of the former, yet some years ago I heard him defend the atrocities of vivisection in a lecture at South Place, London, when he demanded the abolition of the English restriction on physiological experiments. Imagine a Buddhist cutting up animals alive. Let us hope that the influence of St. Anthony has converted Mr. Conway to Zoophily.

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NEW REFORMS.

BY FREDERICK MAY HOLLAND.

VICTOR HUGO was led by sympathy with criminals to treat them as victims of society; and a recent writer in the *New Ideal* is in favor of the complete abolition of government, because, "If we had no governments, criminals would not be created." We are also told that all oppression of wives would cease, if matrimonial contracts were made so easy of dissolution, that there would, strictly speaking, be no marriage at all. Still, other enthusiasts assure us that all the woes of poverty are to be removed by doing away with individual ownership of land, or better still, with all private property, whatever.

Such reforms are advocated with the best possible intentions, and make many converts. Young and imaginative people, who find attempts to reform the tariff, the civil service, or the elections too tame and prosaic to be worth their notice, are delighted with these romantic schemes for abolishing all poverty and vice at a single blow. Nothing could be more fascinating and picturesque than these: no property, no marriage and no government reforms. No method could certainly be more radical than this of completely abolishing every institution which has dangerous tendencies. There is a sublime consistency in rejecting the plea that this or that obnoxious institution is necessary to civilization, and saying, "So much the worse for civilization! That is precisely what ought to be abolished! If property, government, and marriage are necessary to the present civilization, the sooner we can get back to an earlier, simpler and more natural state of things, the better! Let us go back to primeval innocence, and do away with all that is artificial and corrupt!"

The advantages of this method of reform are self-evident, and my present purpose is simply to apply it to fields which have hitherto been neglected.

We all know that tight lacing brings on consumption, and many other diseases; that severe colds are often caught by forgetting garments to whose protection we have been accustomed; that deadly diseases are carried about in infected apparel; and that the fashionable form of female attire hinders women from taking sufficient exercise in the open air, especially on

wet or windy days. It is true that warm clothes preserve many deformed and sickly people from dying young; but this enables them to propagate defects which would otherwise perish with them; and thus the average health of the community is reduced sadly. The Indians were able to lead a thoroughly healthy life here without anything which we should call clothing. Adam and Eve were naked and not ashamed. The first men and women had no need of doctors, for they had no tailors or milliners. What can be plainer than that clothing causes disease? In the name of health, I demand the organization of a No Clothes movement. Let us make a bold push for corporeal independence on the next Fourth of July. No consideration of decency need stand in the way; for that is merely conventional. Pride, vanity, and extravagance would be greatly checked; and there would be much less quarreling of husbands with their wives. The abundance of models would give sculpture and painting such new power as would elevate and purify all social life. Rich and poor would meet as equals, until the reduction in cost of living caused all poverty to vanish. What could be more heavenly and at the same time more natural and primitive?

And, as I look back admiringly upon that picture of health and model of all the virtues, the primitive man, who was as nobly free from clothing as from government, private property, or marriage, I delight to remember how completely he satisfied the apostolic ideal. "If any man offend not in word," says James in his epistle, "the same is a perfect man, and able also to bridle the whole body." No one has ever done this so successfully as the primitive man, the missing link. We can be sure that he never swore, nor lied, nor scolded, nor tattled, nor talked obscenely. Nothing is more certain than that he could not talk at all. Speech, like clothing, marriage, government, and private ownership, is an artificial corruption, a desertion of primeval innocence. Oh, how many vices can be escaped by starting a No Conversation reform, as holy monks have tried to do. There is no other way in which lying, swearing, scolding and all other sins of the tongue can be abolished. I will claim no more space here for setting forth my own favorite reforms, No Clothes and No Conversation; but will merely assure my readers that these

new movements are destined to triumph quite as soon and do just as much good as those for no marriage, no property and no government.

THE HIDDEN SELF.

BY ALICE BODINGTON.

THE researches of M. Ribot and M. Binet into the strange phenomena of secondary consciousness, are well known to the readers of *The Open Court*. Those of M. Janet, in the same field, are also profoundly interesting, and the conclusions he has arrived at are the results of long years of investigation. I have selected a few of his observations and experiments, and have added information from other sources which have a bearing on the same problem.

Under normal conditions we are conscious only of the impressions received by the highest cerebral hemispheres. But in healthy persons under the influence of hypnotism; in some well-known epileptic conditions; and in simple and *double hypnotism* of diseased persons, "submerged consciousnesses" reveal themselves, and become for the time the "Ego." It is probable that further researches will confirm the hypothesis that these submerged consciousnesses, these "hidden selves" are always actively at work, and take upon themselves those manifold occupations with which the highest Self concerns itself very little, after having *learned how to do them*. The acquisition of the arts of walking, reading, writing; of playing on musical instruments, and acquiring foreign languages, all demand careful attention on the part of the highest centres in their acquirement, but are capable of being carried out, when acquired, in what we have been accustomed to call an "automatic" manner. Even the art of lying safely on a bedstead is acquired, and not very quickly either.

In many well-known cases of epilepsy recorded in Medical Journals, the patient has carried out a long, and to all appearance, perfectly rational course of action; has lost consciousness on a quay of the Seine or in a street of New York, and has "come to himself" in a hotel far removed from the scene of his attack. He has taken his ticket, traveled by train, taken a cab, named the hotel to which he wished to be driven; paid bills when presented to him, and has behaved in every respect as a reasoning being; yet of the whole series of transactions so far as his ordinary "Ego" is concerned, he remembers nothing since he was last on the quay or in the street. Terrible crimes, most inhuman in their deadly callousness and ferocity, have been committed in this epileptic condition, yet the conscious self of the unhappy perpetrator would have shrunk with horror from such deeds.

The "nightmare" of children seems also to come within the domain of the "hidden self." The child

utters cries indicative of the utmost terror and distress; sits up in bed or wanders about the room; stares at vacancy, yet is utterly unconscious of the anxious friends who are endeavoring to soothe it. One of these crises may occur every night for a lengthened period. Yet when the sufferer is roused, he—or she—has no recollection of having dreamed anything, or of anything having been the matter.

In the phenomena of "post-hypnotic suggestion" the wonder has been how the command to execute a certain action, or to see a certain imaginary person, should always be obeyed at the exact day and hour that has been suggested. It appears from M. Janet's experiments that the "hidden self"—the inferior consciousness—is busy all the time with remembering the command, has in fact nothing else to do. In one of those curious cases of a true blister caused by hypnotic suggestion, the subject when again hypnotized said, "J'ai tout le temps pensé à votre sinapisme;" that is, the submerged self was ceaselessly occupied with the suggestion, whilst the conscious self did not remember that any such suggestion had been made.

More than a generation ago the late George Henry Lewes commented on the extraordinary fact (as it has seemed till now) that the leg is drawn up when tickled, of a patient in whom the spinal cord is injured, and who is therefore "unconscious" of the tickling. Mr. Lewes declared that there must be *consciousness* in such a case, or the limb would not be withdrawn. His theory met with little but ridicule; he was met by the answer, "There can be no consciousness, without self-consciousness." Those, like myself, who were not the least satisfied with this answer, had no hope whatever of being able to furnish any *proof* of a sub-consciousness residing in the spinal cord below the seat of injury. We had no hope of finding proofs of sub-consciousness in the complicated and purposive movements of the brainless frog. "Reflex action" might cause movements like those of a bell when the wire is pulled, but not one thought the complex movements *with a purpose*, or what would certainly have been considered as complex movements with a purpose in an uninjured frog. It has now been proved that other consciousnesses exist and are actively at work besides the dominating ego; consciousnesses which carry on reflex actions, and also *actions which have become reflex*. The highest of these consciousnesses appears capable of all but the highest functions, and can receive a fair elementary education. In *The Century* magazine for May, a well-known case is mentioned of a "young girl, quick, active, and full of life and animation, who suddenly complained one day of a severe headache, and lay down on the bed. She became unconscious, but awoke in a few moments conscious, although no longer the being she had been. She did

not know her father, mother, brothers, and sisters; the results of years of education had been annihilated. She knew no more of her native tongue than does the child just born. . . . She had to be educated over again. She lived her life, learned her lessons, until she could read and write and knew her friends once more. Suddenly the headache came again upon her, and a deep 'sleep' fell over her. She again woke up to the old being; the language acquired in infancy had returned to her; the facts learned through long years were with her; the acquaintances of old times were her friends. The acquaintances, the lessons learned, the facts and events of the second period she knew no more. So she went on until again the headache returned, the 'sleep' was again on her, and she awoke again her second self. At the very page at which her education had been interrupted in the second state it was now taken up. She recognized the friends of the second state, but knew none of the first. So through years she lived on her double life, now one person, now another; each state being connected with, or rather being a continuation of, the previous corresponding state."

This case has many parallels, in some of which there is not only one submerged ego, capable of acting when the highest ego is suppressed, but two or three or more of these inferior consciousnesses, each carrying on its separate life. M. Janet gives details of the case of a patient whom he calls Léonie 1, Léonie 2, and Léonie 3, according to the consciousness which is in action; the second self, however, rejects the name Léonie, and answers to that of Léontine; and the third self knows herself as Léonore. The true Léonie is a serious, mild, quiet peasant woman, and very timid. But Léontine is vivacious, noisy and restless, and given to irony and sharp jesting. She knows of Léonie, and says (the real Léonie has a husband and children) that the husband belongs to "the other," but the children are hers. This curious distinction is explained by the fact that she had been hypnotized for her first confinements, and had lapsed spontaneously into the hypnotic condition in the later ones.

Léonie 3, "Léonore," knows, strange to say, of both the others. Léonie 1, she calls "a good but rather stupid woman and not me." She is serious and grave, speaks slowly, and moves little, and she despises the volatile character of Léonie 2. "How can you see anything of me in that crazy creature?" she says; "Fortunately I have nothing to do with her!"

There are terrible cases where the "Mr. Hyde," the "bête humaine" of the individual, has got altogether the upper hand; where hell—if it be a state of consciousness—has begun upon earth. Here science steps in, and with merciful hand keeps the 'bête hu-

maine'—alas! in these instances identical with what should be the highest ego,—permanently submerged. Women of bad character, of ferocious temper, and the prey of nameless vices, are by persistent hypnotism rendered useful members of society, acting as servants and hospital nurses.

The case, most interesting in its bearing on the cure of the insane, and in its exemplification of the best side of medical hypnotism, is that of a patient of M. Janet, named "Marie." She was but nineteen when she came under his care. Her condition seemed almost desperate; she had convulsive crises every month, chill, fever, delirium, attacks of terror, etc., lasting for days; with various shifting anæsthesias and contractures. After a lapse of seven months she fell into a kind of despair; and M. Janet as a last resource tried to throw her into a deeper trance,—ordinary hypnotism having no effect. He succeeded even beyond his expectations; for both her early memories and the internal memory of her crises returned in the deep somnambulism. Her periodical chill, fever, and delirium were due to a foolish immersion of herself in cold water at the age of thirteen. The chill, fever, etc., were consequences that then ensued; and now years later, the experience then stamped upon the brain was *repeating itself at regular intervals in the form of an hallucination undergone by the sub-conscious self*, and of which the primary personality only experienced the outer results. The attacks of terror were accounted for by another shocking experience. At the age of sixteen she had seen an old woman killed by falling from a height, and the sub-consciousness endured the repetition of this experience when the other crises came on. The hysterical blindness of her left eye had a similar origin; when six years old, in spite of her cries, she was forced to sleep in the same bed with another child, the left half of whose face bore a disgusting eruption. The result was an eruption on the same parts of her own face, which returned for several years before it disappeared utterly, and left behind it an anæsthesia of the skin and the blindness of the left eye.

M. Janet's object was to obliterate these hallucinations of the submerged self, which were the causes of such terrible distress. Simple commands were fruitless. M. Janet carried the poor girl back to the period of her childhood. It was easy to persuade her that she was again a child, and as a child she was led through the painful scenes of her past life, only they were given a different *dénouement*. The child with whom she had been forced to sleep was represented as no longer horrible, but as a charming little creature whom Marie caressed without fear. He also made her re-enact the scene of the cold immersion, but gave it a different result. He made her live again through

the old woman's accident, but substituted a comical issue for the old tragical end which had made so deep an impression. The sub-conscious Marie, passive and docile, adopted these new versions of the old tales, and may now be either living in monotonous contemplation of them, or they may be extinct altogether. For all morbid symptoms ceased as if by magic. "It is five months," says M. Janet, "since these experiments were performed. Marie shows no longer the slightest symptoms of hysteria. She is well, and in particular has grown quite stout. Her physical aspect has absolutely changed. Moreover, she is no longer hypnotizable."

In another case of severe hysterical vomiting, M. Janet has found it necessary to keep the patient constantly in the hypnotic state.

That the submerged consciousnesses are real consciousnesses, and not mere manifestations of reflex action, has already been abundantly proved. If anything can indicate an independent ego, it must surely be the capacity of writing a letter spontaneously. This was done by the second self of Léonie, who knows herself as 'Léontine.*' Léonie had left the hospital at Havre about two months when M. Janet received a singular letter. On the first page was a short note signed with her real name "Femme B . . ." saying she had been feeling very unwell, and worse some days than others. But on the next page was a very different production. "My dear good Sir," it said, "I must tell you that Léonie truly, truly causes me great suffering, she cannot sleep; she does me a great deal of harm; I shall do for her (*je vais la démolir*) she puts me out of all patience; I am ill too, and very tired. From your devoted Léontine." When Léonie returned to Havre, M. Janet questioned her about this twin letter; she remembered the first part well, but knew nothing of Léontine's sequel. Subsequently M. Janet was able to watch the production of these sub-conscious and *spontaneously written* letters. One day Léonie was sitting calmly by a table holding in one hand a piece of knitting at which she had been working. Her face was very calm, and she was singing a peasant's song in a low voice. In the meantime the right hand was writing quickly. "I took away the paper," says M. Janet, "without her noticing it and I spoke to her. She seemed a little surprised to see me, said she had spent the day knitting, and had been singing because she thought herself alone." She had no knowledge whatever of the paper she had written. In subsequent letters the 'second self' Léontine showed both intelligence and an excellent memory; she gave an account of Léonie's childhood, and her remarks were full of good sense. Léonie had a habit of tearing up the papers that

'Léontine' had written. Thereupon in one of Léonie's fits of absence of mind (distraction) she made her take the letter and hide it in a certain photographic album which contained the portrait of a M. Gibert, whom Léonie hated and dreaded. She would never therefore consciously open this album, and here 'Léontine' knew her precious papers would be safe. It must be borne in mind that these manifestations of the second self did not occur in the hypnotic state. M. Janet, to his great astonishment, found that Léonie did not know his address, nor did she know how or why she had gone to Havre; Léontine was in a hurry to return to the hospital, and had made Léonie start off without any luggage.

[TO BE CONCLUDED.]

THE AUTHORITY OF THE MORAL LAW.

CONSCIENCE is not so much an authority itself, as it is representative of an authority. It represents the authority of the moral law in the world, which is no less a reality than all the other natural laws. Mr. Salter in a most enthusiastic lecture on the higher law containing much that is true, asks the question:

"Whence comes the authority of this law that is within and over us?"

Mr. Salter continues:

"The ordinary answers seem to me here entirely to fail . . . the last answer as to the sources of the authority of the higher law fails as truly as the first. In fact there is no answer; there are no sources for that supreme authority."

The Israelites conceived the authority of the moral law, the power that makes for righteousness, under the allegory of a powerful ruler of nature, as a great, personal being, as a legislator who had revealed his wise orders to Moses. And through the mouth of Moses, the God of the Old Testament is said to have characterized himself in the following words:

"I the Lord thy God am a jealous God, visiting the iniquity of the fathers upon the children unto the third and fourth generation of them that hate me; and showing mercy unto thousands of them that love me, and keep my commandments."

That God is jealous means he is intolerant. He enforces his will and suffers no one to live who attempts permanently to resist his will.

The God of Science is just as jealous, just as intolerant as the God of the Old Testament. The laws of nature are firm, unalterable, irrefragable, and omnipotent. The will of God is described to be "steadfast forever," and his dominion over the world* is proclaimed to be eternal. It is only by obedience to the immutable laws of nature that we can live. The Psalmist says:

"Unless thy law had been my delights, I should then have perished in mine affliction." (119, 92.)

Who can doubt that nature enforces her laws rigor-

* *L'Automatisme Psychologique*, pp. 320-322.

* Daniel 6, 26.

ously, that she ruthlessly punishes him who does not regard them, but that, on the other hand, (to use the poetical phrase of the Bible,) she is "plenteous in mercy" to him who loves her, who studies her secrets and obeys her commandments? Certainly, the laws of nature are not deities, and the moral order of the world is not a person. But they are, nevertheless, objective realities just the same.

We have ceased to believe in Demeter, but we have not ceased tilling the ground. And if we ask, Who is it that taught man to till the ground? we do not hesitate to answer, "It is experience; the facts of life have taught man to sow and to harvest the fruits of the earth." The myth of Demeter is not wrong, it is simply an allegory; and the myth of a personal God having spoken to Moses out of a fiery bush contains great truths, but we must bear in mind that the truths contained in the Mosaic religion are wrapped in poetry. And science can just as much explain ethics and the moral law, and the authority of moral obligations, as it can derive the rules of agriculture from the facts of nature.

It is true as Mr. Salter says, "Science teaches us that which is, but Ethics that which ought to be." But that which ought to be, must be based upon that which is; else it will not stand.

What is the ought? The *ought* is that into which the *is* has the tendency to change. It is the *is to be*.

A Unitarian friend of mine compares in this respect ethics to obstetrics. Ethics cannot at individual pleasure create ideals of morality, all it can do is to find out the tendency of life and to assist in bringing the *is to be* to birth. The authority upon which ethics is based, he says, is not a person, but we can represent it as a person. We can symbolize its activity as if it consisted of personal actions, and that is the method by which the various religions teach ethics.

In fine, the authority according to which moral ideals must be shaped, is not subjective, but objective. It is not to be sought for in the realms of absolute principles, but must be modeled in conformity with existing facts and with the eternal laws that science abstracts from existing facts.

Ethical ideals that are not based on facts, are like the mirage in the desert. The mirage may be more beautiful than the oasis, but he goes astray who ventures to follow it.

THE THREE PHASES OF ETHICAL DEVELOPMENT.

There are three phases or periods in the ethical development of mankind. Like all phases of evolution they are not sharply divided; one passes over into the next gradually. Their development is nevertheless sufficiently marked to be noticeable.

The first period begins with the dawn of civilized

life and culminates in the establishment of authoritative dogmatism. The transition to the second period is marked by the breakdown of this authoritative dogmatism. The second period is the substitution of the individual conscience in the place of dogmatism. It culminates in the recognition of the sovereignty of the moral ought, and of the freedom of conscience. The transition to the third period is the result of the conflicts produced by the arbitrary nature of the various conceptions of duty.

If man's conscience is to be considered as the ultimate court of appeal we can have no objective standard of right and wrong. That which is wrong according to my conscience, may be right according to the conscience of others. How shall we decide? It is obvious that we want an objective standard of morality. Without an objective standard of morality we shall sink into moral anarchy, where the will of the individual is the sole test of what is right or wrong.

Accordingly ethics is in need of an authority to decide the conflict between two consciences or the conflict between two different commands in the conscience of one and the same man.

Must we return to the old dogmatism of the first period? We shall not; for we have outgrown mythology, and shall never return to the creeds of the old religions. But we need not think of returning to the old views, we can progress to a higher view. We have now better means than our ancestors had for recognizing the authority upon which the moral ought rests. Our knowledge of nature and of the laws of nature has grown sufficiently for us to be able to account for the necessity as well as the natural growth of morality. The authority upon which the moral commands are based can be scientifically investigated and explained no less than the other facts of nature.

The first period is represented by the Mosaic law, by Roman Christianity, and similar institutions of authoritative dogmatism. The second period is represented by certain phases and ideals of the Reformation, the overthrow of Roman authority, and the recognition of the liberty of conscience. The third period is the religion of the future, which is near at hand. It is the basing of ethics upon the firm ground of facts. It is the recognition of an authority the nature of which can be explained by science. It is the establishment of the religion of science.

This religion of science is not only the fulfilment of the old religions; it is also the realization of that ideal which has been called natural religion. If the societies for ethical culture had been founded to represent this view, they would grow like the mustard seed; the seed would soon be the greatest among herbs and become a tree so that the birds of the air would come and lodge in the branches thereof.

Mr. Salter does not approve of what he calls "setting up a standard of philosophical orthodoxy." He says:

"Dr. Carus, I am sorry to see, has not outgrown the sectarian principle of the churches, and would apparently give us another sect as 'exclusive' and 'intolerant' as any of the past, though (Gottlob) it will play with the sword of the spirit and not with the arm of flesh."

It lies in the nature of ethics to establish an authority, and every authority is in a certain sense exclusive and intolerant. An ethical teacher, in my mind, cannot help being "exclusive" and "intolerant," if "intolerant" means the confidence that there is but one truth. Or shall any kind of ethics have the same right? Can anybody violate a law if only his conscience impels him to ignore that law? and can truth be tolerant of error? or can we have different kinds of truth which, although contradictory, among themselves may be of equal value?

The ideal of tolerance (as the word is commonly used) means that we use no other weapons in the defense of our opinion than the sword of the spirit, but it does not mean that any and every error has the same right as demonstrable truths.

It would be intolerant to make a certain belief the condition for being admitted to a religious society; but it is not intolerant for anybody, neither for societies nor for individuals, to have a definite and outspoken opinion. Nor would the leaders of the Ethical Societies commit themselves to intolerance and exclusiveness by declaring what they understand by ethics. We maintain that they cannot properly teach ethics without knowing what ethics means. In order to know what ethics means, they must define the idea of moral goodness, and they cannot define the idea of moral goodness without proposing a basis of ethics. If that is intolerant sectarianism, they have in our opinion to become intolerant sectarians. But definiteness of opinion is neither intolerance nor sectarianism, so long as an opinion remains exposed to scientific criticism, so long as in the struggle for truth its upholders slay only with the sword of the spirit and not with the arm of flesh. To have no opinion and to declare that officially the Societies for Ethical Culture do not intend to have an opinion, is not tolerance, but indefiniteness.

Conventionalism may be a sufficient *raison d'être* for formalities, ceremonies, and customs; but it is not a sufficient basis for ethics. And a reformatory movement such as the Societies for Ethical Culture aspire to inaugurate, cannot take deep root if it is planted on the stony ground of conventionalism.

The intolerance of the first period is an intolerance of assumed authority, but the intolerance of the religion of science—if intolerance it can be called—is

the sovereignty of demonstrable truth. Truth is one from eternity to eternity, and there is no other truth beside that one and sole and immutable truth. Truth is that Deity which suffers no equal. Like Jehovah in the Decalogue, Truth pronounces as its first commandment:

P. C.

"Thou shalt have no other gods before me."

CURRENT TOPICS.

THE venerable conundrum, "What constitutes a gentleman," was recently brought up for answer in an English court, but unfortunately, the judicial decision left the problem in its old uncertain state. It appears that a person insured in an Accident Insurance Company, having been accidentally injured, sued for his insurance money. His claim was resisted on the ground that in his application for a policy, he had called himself a "gentleman," and as this was a false description, by which the company had been deceived, the policy was void. It appeared from the evidence that the plaintiff, although out of business at the time he applied for the insurance, had formerly been in the habit of earning an honest living as a tradesman, or merchant, and therefore could never be a "gentleman" in the legal meaning of the word. The court, although intimating that "no occupation" would have been the proper description, declined to pass upon the point, because the agent of the company, when he gave the policy, knew all the circumstances, and had even suggested the description "gentleman"; therefore the company was bound by the action of its agent, and the policy was good. The plaintiff got a judgment for the amount of his claim, but his narrow escape will make him careful hereafter not to call himself a "gentleman."

On the trial of Thurtell, sixty or seventy years ago, a witness testified that he knew the prisoner was a gentleman, "because he kept a gig." This reason has never been regarded as decisive, because not accompanied by proof that he had also lived a life of idleness. I see from a criticism in *Unity* that Professor Swing in a late sermon intimated that a gentleman must have some theological belief, or forfeit the title. He asserted that the ancient epicureanism was "a culture without God, the effort of man to be a gentleman" without troubling himself about the creeds, or about questions of his origin and destiny. The language of the sentiment is doubtless the Professor's own, but it is hard to believe that the idea is not a plagiarism from Harry Sullivan, a London street Arab, who attended the ragged school patronized by Miss Tennant before she married Stanley. Describing one of her school examinations, she says, "I asked Harry Sullivan to define a gentleman. He replied, not without some fervor, 'Oh! a fellow who has a watch and chain, and loves Jesus.'" When properly elaborated, amplified, and diluted, Harry Sullivan's definition has an almost photographic likeness to a description fresh from the pulpit of Central Music Hall.

Admitting that theological belief is a constituent element in the composition of a gentleman, must it be orthodox according to the Christian canons, or will faith in false Gods do? This problem is not to be solved in the gloom of the cloister, but in the light of the living world. For a test, let us apply an actual example furnished by the Probate Court in London. In September, the will of Sir Munguldass Nuthoooboy, a Hindoo millionaire, was offered for probate in that court. He was a citizen of Bombay, eminent for his private and public virtues. His life was marked by industry, philanthropy, and honesty. He had prospered in spite of his benevolence, and his estate amounted to 3,435,000 rupees. After providing liberally for his own children, as his duty was, he took thought for some other people's children, and left large sums of money to schools, hospitals, and various benevolent

institutions. All this was highly praiseworthy, and would no doubt have been placed to the credit side of his account in the books of the recording angel, but for one theological mistake; he built a temple to Siva, the God of his fathers, and he set apart 10,000 rupees "to purchase idols for the same." This very useful and benevolent man had never made "an effort to be a gentleman with a culture without God," but his God was worse than none say the Scribes and Pharisees, for it was a false God, and his worship was idolatry; therefore, according to Harry Sullivan, and other orthodox theologians, Sir Munguldass could not be a "gentleman."

Speaking of wills compels me to acknowledge that they have a weird and spiritual charm for me. I love to rove among their avenues and by-ways, to trace in their provisions the features of the dead. There is a fine character study in wills; and in their eccentricities we may learn the influence of wealth upon the souls of men. Wills are full of ethical problems; and in a legacy we may often see the palpitations of a conscience. Searching in the foliage of a recent will I found a blossom which I thought was grafted from a Bible tree, "the laborer is worthy of his hire;" and the question it suggested was, Does that apply to laborers of every kind? Does it include within its justice that large class of laborers who are uninfluential and unorganized, who do not belong to the "Knights," who have no walking delegates, and who never strike? I mean horses, oxen, dogs, and toilers of that kind. This is an ethical problem which deserves more study than it gets, and which might not have aroused my thought had it not been forced upon my notice by this curious "item" in the will of a certain Mr. Clayton. This is the blossom to which I have referred. The testator bequeaths the sum of thirty pounds a year, "for the care and maintenance of the house-dog Marcus Aurelius." This bequest is not a pension, on which Marcus Aurelius is to live in laziness, and laugh at other dogs who earn an honest living; it is left as wages, for it is provided in the will, that whenever Marcus Aurelius shall for any reason, fail to perform the duties of his office, the salary shall go to any other competent dog who may be a successful candidate for the position. At the first view, a hundred and fifty dollars a year appears to be big wages to pay a dog for house-watching, especially as he buys no clothes, and has no rent to pay; but it is not so very extravagant after all, when we remember what a policeman gets for the same work, which he performs not half so well. I think the next "revised version" will make more clear the meaning of the scripture, that the laborer is worthy of his hire.

* * *

Judging by the newspapers, the city of Chicago appears to be afflicted at this moment by two mischievous kinds of citizens, one that votes too little, and the other too much. The pulpit and the press ring out vehement appeals to the "better classes" urging them to vote, and thus counteract the mischievous activity of over-zealous patriots from the Lakes of Killarney, and the Mediterranean sea. It is claimed that some of these invaders are too public spirited for the common good, and that they are altogether too loyal to the American ballot system. So ardent is their attachment to American institutions that they commit perjury, in order to perform, perhaps a little prematurely, the duty of ballot boxing which the "better classes" neglect. It appears that for some time past, the courts have been working over time, converting aliens into voters, intending to make citizens, when we know that for any patriotic use thousands of them never can be made citizens in the legal meaning of the word. Partly from the hopper of the naturalization mill, and partly out of other mills, came 50,000 new voters and put their names on the polling lists at the registration in October. Simultaneously appeared the United States marshal and arrested several gangs of them for committing perjury as the beginning of citizenship, and several other gangs,

the practical statesmen of the town, for suborning them to do so. Of the 50,000 no less than 25,000 have been notified by the officers of election that they are "suspects," and that their right to vote must be shown by further evidence. Meantime, a call is made on all good citizens to vote, or for ever hold their peace about bad government.

* * *

The census of 1890 has been vigorously impeached for falsehood by many cities and towns because the figures made by actual count fall below the guess work estimates. As the distance "covered" by some provincial athlete in jumping, pitching, or throwing, shrinks under the test of a tape line, so the population of a town as proclaimed by its inhabitants is liable to shrink under the test of an actual poll. Although an error here or there should not be received as evidence against its fairness, some ugly charges have been made that the census is not honest, and that it has been corrupted and falsified for partisan and political advantage. This accusation had no moral weight; it was disdainfully regarded as part of that humorous mendacity essential to a political campaign. It was neither circumstantial, nor specific, and it had no responsible authority behind it; but that is not so now; it is indorsed and guaranteed by no less a personage than the Governor of New York. In a speech made by him at Canton, Ohio, the Governor said: "The census has been manipulated for counting the republican populations up and the democratic populations down." This is either true or false; if true the census returns are a worthless complication of perjuries and frauds; if false, the slander is as wicked as the crime charged, and unless the governor can prove his accusation, the "effete monarchies" of the old world will wonder what sort of people are employed for governors in the state of New York.

M. M. TRUMBULL.

CORRESPONDENCE.

SOLIPSISM AND MONISM.

To the Editor of *The Open Court*:—

"The tides of philosophic thought are setting toward unity," is the first sentence and the key-note of the able article on "Positive Idealism" in *The Open Court* of September 25. This, of course, is the key-note of your valuable journal. In the logical meaning of unity this is a logical necessity, for all truth must lie consistent with all other truth; and so the totality of all truth is a logical unity. On this there can be no question or doubt.

But I understand that the monism advocated by *The Open Court* is a more ulterior unity than this; that it is the affirmation of the essential identity of all being and the ultimate unity and harmony which are implied in its action; and that hence there follows a moral law of universal obligation, to act for the whole as parts of the whole. This monism, I think, cannot be made to square with any form of psychological idealism; for they all make all the known and knowable world of sense purely subjective, an evolution from and in the subject, though this evolution is supposed to be aided by an inconceivable something from beyond this known sense world. The monism of *The Open Court*, if I understand it, makes the known and knowable world an essential part of the total monus from which man and all interior life are evolved and into which all known individual forms of life are re-dissolved. If this is so, this monism has to settle with modern psychology which is idealistic, and this psychology is now widely taking possession of common and popular thinkers. The issue here involved is fundamental, and no theory of monism can evade or ignore it; and your excellent contributor, Mr. McCrie, will here need to explain himself further as an idealist.

As an idealist Mr. McCrie says truly: "The ego is not the bodily organism alone. The true, the only ego—is the subject

self projected so as to include the objective." This extension of the ego as conscious subject cannot be limited in any direction—if all phenomena are subjective states or conscious moods of the ego. Then I, the conscious ego or subject am wherever there is a phenomenon—may I comprise that phenomenon in every case. It is I and I am it. It is I in that said mood. I thus constitute the entire known and knowable universe, and all its known and knowable forces, for these cannot be directly known or conceived except as they are known or conceived as phenomenal, at least in their manifestation, and it is only their manifestation which is directly known. There is nothing known from which this universe can be evolved—except myself, conscious subject. This I know; and according to this theory I know it as comprising the universe; and all the known evolutions and involutions of the universe are known only as the variations of my own mind or unitary power of conscious life. *Thus I am the ALL.* I know nothing unconscious, and no other consciousness than my own or myself.

These phenomena are not abstractions, and my conscious self is not an abstraction. If psychological idealism be true there is no room for any other monism than solipsism—unless it be a very different monism from that of *The Open Court*, and attained by a far less simple and direct process, as it seems to me. On these points I should be pleased to hear from Dr. Carus as well as Mr. McCrie.

Yours Inquiringly,

WM. J. GILL.

[Since I read Mr. McCrie's article in No. 161 of *The Open Court*, and Miss Naden's essays,* I am under the impression that the differences between Solipsism and the Monism of *The Open Court* are mainly verbal. It may be that I misinterpret Dr. Lewins, the founder of Solipsism, for the problems are so very subtle that we have to ascertain the exact meaning of every concept which we introduce in our reasoning and it is not a mere phrase when Prof. Clifford says:

"The question is one in which it is peculiarly difficult to make out precisely what another man means, and even what one means oneself."

Mr. McCrie, the philosophic thinker of the Orkney Islands, is an intimate friend of Dr. Lewins. He as well as Miss Naden can be considered as faithful representatives of Solipsism.

Now I find that Dr. Lewins and his adherents use an entirely different terminology than we do. There is, for instance, a tree seen. That part of the process (viz., of the tree being seen) which (as science informs us) consists of certain nervous disturbances in the brain accompanied with a special kind of consciousness is commonly called "a sensation," and that part from which the rays of light proceed is called "an object." Dr. Lewins appears to include in the term sensation the objective thing that causes the sensation. He calls object that something which is projected by our senses to a place outside our body.

There are in the domain of objects motions sensorily perceived to take place and there are other motions (viz., those in the brain) which (although not always directly perceived) are for certain scientific reasons assumed to take place. Some motions (viz., some of those taking place in the brain) are not mere motions, they possess in addition a certain something called feeling.

There are accordingly objects and subjective representations of objects forming analogues of the objects. We will call the former the domain of objectivity, the latter the domain of subjectivity. The difficulty that presents itself is to draw a line of demarcation between subjectivity and objectivity.

The objective process of motion does not cease when passing into the spectator's eye. The motions that take place within the brain, are according to our usage of terms objective processes just as much as all other motions, and I prefer to confine the domain

of subjectivity to the feeling alone. Yet I am aware of the fact that neither subjectivity nor objectivity exist by themselves; they are abstract conceptions which are arrived at by a most complicated process of thinking. They have been abstracted from Reality which is one inseparable whole.

Philosophy and the sciences are at work to describe the whole of reality, the domain of objectivity as well as that of subjectivity in their interconnection,* and it is at once apparent that this description can be made in different terms. Two descriptions made in different terms may be equally correct. They may apparently contradict one another, and yet their actual meaning may be one and the same.

I will call attention here to Mr. McCrie's proposition that man's ego is not limited to his body; the objects belong to it; and certainly man's body and the objects around him are one inseparable whole. His lungs as they are cannot exist one millionth part of a second without the surrounding air and the pressure of the atmosphere. Exactly so his brain and the ideas that are registered in his brain exist, as they are only on account of the surrounding world. The surrounding world in this sense is an actual part of man's existence.

Dr. Lewins and Mr. McCrie emphasize this truth in their terminology. All the critical remarks which Dr. Lewins has made on the views presented in *The Open Court* seem (in my mind) to arise from the difference of terminology. He calls "ego" that which we call "the All," and thus it is quite natural for him to say, the ego alone is God.

I cannot agree with Dr. Lewins in the acceptability of his terms, but that is another question.

My opinion that the most flagrant discrepancies are merely verbal, that they ultimately rest upon a difference of terms, has found a corroboration in my private correspondence with Dr. Lewins.—ED.]

* This subject has been discussed in my article "The Origin of Mind," published in *The Month*, No. 1.

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STRIKES AND LOCKOUTS.

BY M. M. TRUMBULL.

The after-dinner debate at the Sunset Club on the 6th of November was unusually grave and earnest, as became the ominous theme, "Strikes and Lockouts." In a kindly endeavor to soften flint and steel, so that fire might not fly from their collision, the Secretary sprinkled over the tables a hatful of congratulations on the good work the Sunset Club was doing, "in making the radical less radical, and the conservative more liberal." The hint was lost, for no man tempered his language, except so far as toleration and courtesy required. The radical yielded nothing, neither did the conservative, and each was right. Men cannot be too radical for a truth seeking recognition, nor too conservative against an error crowding in. In morals every man must follow his individual conscience. Whatever an honest man believes, that is the truth to him; and he has no more right to yield any part of it, than he has to surrender the multiplication table; for the laws of ethics are as radical as the laws of mathematics. Whatever a time-server believes is of little consequence; it is merely a matter of self-interest with him, and outside the catalogue of moral agencies. A true man in the wrong, is of more use in this world than a false man in the right.

Strikes and Lockouts are interconvertible terms. Each is intended to be a measure of self-defense and a protest against wrong. The lockout is merely a strike of the employers against their workmen, and its moral and political character, like that of a strike, must be determined by its own circumstances and the motives by which it is controlled. Each side was ably represented in the debate, the employers getting a little the worst of it, because, having the opening, they pitched the keynote a little too low, and estimated the profit and loss of Strikes and Lockouts by a money standard; whereas in many cases they are efforts to vindicate a principle without counting or caring for the cost. Here is the keynote, as it was pitched by an employer of labor who opened the debate:

"This carpenter's strike has been a great loss to the capitalist, builder, contractor and laborer, but I cannot see where the working man got the benefit of what he struck for. Nearly all the great strikes for the past ten years have been defeated in the end. . . .

If they succeeded in getting a small increase, that increase was totally wiped out in the great amount of money they expended to get what they demanded."

The weakness of that argument was its "Does it pay" character, a consideration which has never yet controlled the efforts of men towards liberty. Every victory won by justice in the social conflict has been the culmination of disasters and defeats. John Hampden found that there was no profit for him in his contest with the king over a trifling matter of taxation; and yet the defeat of Hampden in that famous lawsuit, was one of the great political victories of the English people. The "profit or loss" argument was easily answered by a member of the club who belonged to the "working man" element. His reply was this:

"It is said that even if the strike is won the waste of wages incurred is far greater than the added compensation, which is gained. Take the Burlington strike, which resulted in loss of wages to thousands and thousands of dollars, and the strikers were not even successful. But what was its effect? The next railroad company, when their men have a grievance, will think twice, before they permit a strike of such magnitude. If the working men never struck, no man can tell to what point the monopolistic power of this country would be led."

And another one said:

"I have myself been conversant with the facts in a few cases where strikes have been agreed to where there was no possible hope of ultimate success, but simply with the idea of entering an emphatic protest against the demands of an unreasonable or tyrannical manager or employer."

This was a novel view of the subject to some of the employers present, but it revealed the moral foundation of that expensive system of resistance which takes the form of strikes, wherein the working men surrender to present loss and poverty, in order to protect themselves from greater poverty and humiliation in the future. When the first speaker said that in the matter of disputes between the employer and the employed, he favored a settlement by arbitration, he made a concession to the other side, because without strikes there would be no arbitration.

He said some other things, and very ugly things they were. Referring to the coercion tactics practised by the striking carpenters towards the men who chose to work instead of strike, he said:

"I have seen men coerced by a 2 x 4 scantling on their heads. The methods of the strikers were not of the kind laid down in books of etiquette. They would take hold of the first man they

could find, and if they could not convince him in a very few words they would take him and throw him off the building, and his tools would follow."

To this indictment there was no answer, and for that reason the "Strike" side of the debate was very much impaired. It limped around on crutches furnished by the most eloquent debater there, who said:

"The tyranny of working men we hear so much about, consists mainly in their anti-tyrannical refusal to allow the other side to make both ends of the bargain. . . . We hear a great deal of the turbulence of the working man. The misdeeds of the working man are serious enough, but they are holiness itself by the side of the Pinkertons and Gatling guns which Christian chaplains used for the conversion of the heathen and the strikers."

Neither excuse is valid, and the *tu quoque* argument is fallacious because the men thrown off the building were not Pinkertons, but carpenters earning bread. To respect the liberty of others is a hard lesson to learn, but mechanics, as well as millionaires, must learn it.

Among the liberal and humane sentiments eloquently expressed by one of the speakers was this:

"Historically it is only yesterday that working men ceased to be slaves. The cap that is put on the domestic, and the suit that is put on the coachman, are all survivals, which show we have not outgrown the barbarism of the days when work was all done by slaves."

There was material for solemn thought in that, for no man can deprive another of self-respect without endangering his own. It is not well to disfigure any honest employment with a badge of servitude. To mark any man with livery in this land is an offense against all other men. It is the vulgar insolence of riches. No magnanimous American, proud of his country and its freedom can look upon another man in livery without a feeling of pain and humiliation; if he can, he has forfeited his American quality, and has passed into the brotherhood of snobs. He is a menial in spirit, a Jeems Yellowplush, trying to establish Noodle-dom in the United States, "on the European plan."

There were some other statements just as eloquently made which are open to adverse criticism, for instance, this: "The working man claims the right to know why he has been discharged, and not to be discharged without cause." And this: "Trades Unions exist to maintain the sacred rights of labor." And this: "The working men are often wrong, but theirs is always the right side." If the first proposition is correct, and the claim be allowed, the obligation should be mutual, but the working man claims the right to discharge his employer at any time, and without giving any reasons at all. The second proposition never was true as to outside labor, and it never will be true until the Trades Unions recognize the "sacred right" of every man to labor without hindrance or molestation from them. As to the third proposition, it is enough to say that right ought never to be main-

tained by wrong, and that the right side may become the wrong side if defended by wrong means. No man has power to absolve the working men from sins by anointing them with the soothing unction that "theirs is always the right side."

Legislative therapeutics, as a cure for Strikes and Lockouts, had some able advocates, and of course they wanted "to have a law passed"—against the earthquakes and the storms. Leaning with confidence on the physical force theory of persuasion, a very energetic speaker declared, in a tone of indignant scorn, that, "To say that Strikes and Lockouts could not be controlled by law, would be to confess the failure of our free system of government." Here the legitimate conclusion from the premises was reversed, because if Strikes and Lockouts cannot be controlled by law, that fact is evidence that free government is a success. If the speaker had omitted the word "free" there would have been symmetry in his logic, but the admission of that word was fatal to the sentence. Strikes and Lockouts, whether wise or foolish, just or unjust, are signs of a free people, and wherever they can be "controlled by law," that government is not free. They are some of the forms of a spiritual unrest, seething down there in the very centre of the social world, and beyond all statutory control. No doubt the people of Naples, offended by the smell of brimstone, might "have a law passed" to suppress Vesuvius, and it might be within the powers of modern police engineering to stop the mouth of that mountain, and silence its noisy agitation; but in that case, the discontent below would burst through the crust of the earth elsewhere, perhaps under the city itself. Our calf-bound books are bloated with laws already; how would the repealing of laws do by way of experiment? Suppose we try that.

WHY WE WANT A REVOLUTION.

IN REPLY TO DR. PAUL CARUS.

BY MORRISON I. SWIFT.

A revolution is not, by necessity, accompanied with violence, as Dr. Carus seems to think. The *London Methodist Times* perceives this clearly in pronouncing that "England is in the midst of a social revolution. Old things are passing away and all things are becoming new at an unprecedented rate. And yet because the greatest revolution in our history is not accompanied by bloodshed, few realize its magnitude and far-reaching significance."* Revolution is evolution,

*The remainder of the paragraph is also good:—"If men were really able to take the late Matthew Arnold's advice, and see things as they are, the rate at which the social revolution is progressing would be enough to take their breath away. If our rulers in Church and State really could understand what is taking place under their very eyes, such events as the proceedings of the Trade Union Congress at Liverpool last week would agitate them too much. A gathering of workmen, which, twenty short years ago, was treated with mingled merriment and contempt, has already become so important that it almost rivals the Imperial Parliament in public attention. We are on the threshold of a new socialism."

only it is the evolution of ordinary times accelerated. It is the characteristic of a revolution to be complete in its work. Revolution is emphatic. In ordinary evolution men are not so conscious of what they wish to part with and what to acquire, and they are not thorough. Witness our antiquated fantastic mechanism of laws. Men are slow to see; revolution makes them see vividly. Men are skeptical of their insights; revolution infuses them with faith in their insights. Men are timid to act; revolution makes them bold to act. Men remember what revolutions taught them. No one thought it amiss that some should live on grass before the French Revolution; now, if men are anywhere obliged to eat grass, it is acknowledged to be out of the right order of things.

At this time there are some things that need uncommon emphasizing, and nothing but a revolution will accentuate them sufficiently. One of these is this, that so long as there is want anywhere there shall be nowhere excess. Another is that no right of possession of one man amply cared for shall debar another man from the development he might have if that so-called right of possession did not exist.

There is a higher code of laws than anything written in the books. Chief of them is that all living men and women shall be granted development up to the full material capacity of the earth on which they live. That another man claims ownership and orders them off does not confer ownership or the right to order them off, if keeping off obstructs their development. That the law says, "This property belongs to Blank, and you cannot have it for your adequate nourishment and education, because he desires it for dinner parties," has no weight against the superior law, and the revolution has come to establish this superior law. Now, no man should wish to corral what would develop others, and use it for his surfeit. But this is what the rich do, and herein lies my charge against them. Because the lower written law allows them to do what the higher law forbids, they corner the material things of the earth and bar out whom they choose from welfare and progress.

My indictment against the rich is not, as Dr. Carus concludes, "that they do not use their power to overthrow the social order," it is that they do not use their power to change the social order. They are the ones who can change it without that "break-down of society" which Dr. Carus and I, equally with him, deplore. But if they set their faces to keeping the social order as it is for their private joy and supremacy, then just because so much power is in their hands the change will require a preliminary breaking down and dissolution to get selfish obstructionists out of the way. And the cause of the breaking down and dissolution will be the selfish obstructionists themselves.

It is no fanciful assertion that the ability to change the social order is in possession of the rich. The rich critic of my paper approving revolution, who said it was not agreeable for him to be pilloried by name,* knows this, as all know it, and acknowledges it in protesting in his own defense that because there are writers who, like myself, 'try to focalize prejudice and hatred against the rich,' "many men who accumulate means, hide from public notice. They refuse to identify themselves with movements which would ameliorate if not cure the troubles of the poor and unfortunate, while those who are sympathetic and active are assailed." This contains my indictment against the rich in a kernel. They might "ameliorate if not cure the troubles of the poor and the unfortunate" if they wanted to, and they do not want to. I know of no way to get them to want to by persuasion. The whole past of mankind is an evidence that they have not been amenable to persuasion, for here are the poor and unfortunate still, and here still are the rich, abounding in exceeding luxury, with the power to 'ameliorate if not cure the troubles of the poor,' folded away in a napkin. I think that all time has been proving that a revolution is the thing needful to induce the rich to do what they have ample power to do and refuse to do cheerfully and willingly.

A revolution will bring to light those who "hide from public notice" to escape being pilloried, though it was never seen that such brought themselves to public notice philanthropically: before the practice of pilloring arose, else why were the poor and unfortunate not ameliorated long ere now? But a revolution is hardly less requisite for the sake of the rich who do 'come forward to identify themselves with movements to cure the troubles of the poor and unfortunate,' and if I succeed in making this point appreciable, I shall not have breathed the vital air of earth vainly. For how far do these philanthropic rich advance in their philanthropy? Do they show promise of granting all men and women their development up to the full material capacity of the earth now? Not so. They must first set off for themselves and their families the choicest homes, and fabrics, and viands, and appurtenances for display and migration, and then they identify themselves with a charity or found a college. Mr. Astor, avers the hero of one of Mr. William Matthew's anecdotes,† is "found," and that's all. The houses, the warehouses, the ships, the farms, which he counts by the hundreds, and is often obliged to take care of, are for the accommodation of others. . . . He can do nothing with his income but build more houses and warehouses and ships, or loan money on mortgages for the convenience of others. He's found,

* The Open Court. Oct. 30, 1890.

† Ibid.

and you can make nothing else out of it." A slight oversight is here. How are Mr. Astor and the rich "found?" In Newport villas or the Berkshire valleys in summer, and at winter in their metropolitan palaces, or domiciled in some sunny capital of the mother world. They are "found" in pocket money enough weekly to educate thousands of young men and women, and this they expend in receptions kindred to barbarian festivals, and in theatre parties and stables. I do not object to luxury when all have it, but when it defrauds the millions of development I object to it.

The difference between being "found" thus and being "found" as the common workers who create the Newport mansions and princely incomes for the rich, is that life for one class is life, and for the other a mere vanishing adumbration of life, with less than a taste of joy to let them dream what it should and could be. The difference is that the crowd whose development is intercepted by the suppers of the rich can only become imperfect shadows of men, with instincts starved, as Professor James tells us, because their proper objects were not presented at the right time. "In a perfectly-rounded development," says this candid scientist, "every one of these instincts would start a habit toward certain objects and inhibit a habit toward certain others. Usually this is the case; but, in the one-sided development of civilized life, it happens that the timely age goes by in a sort of starvation of objects, and the individual then grows up with gaps in his psychic constitution which future experiences can never fill. Compare the accomplished gentleman with the poor artisan or tradesman of a city: during the adolescence of the former, objects appropriate to his growing interests, bodily and mental, were offered as fast as the interests awoke, and, as a consequence, he is armed and equipped at every angle to meet the world. Sport came to the rescue and completed his education where real things were lacking. He has tasted of the essence of every side of human life, being sailor, hunter, athlete, scholar, fighter, talker, dandy, man of affairs, etc., all in one. Over the city poor boy's youth no such golden opportunities were hung, and in his manhood no desires for most of them exist. Fortunate it is for him if gaps are the only anomalies his instinctive life presents; perversions are too often the fruit of his unnatural bringing up."*

Dr. Carus conjectures that in this extremity I "would repeat the demand of Christ: 'Go and sell all that thou hast and give to the poor,'" but I do not require this. I would only require them to abandon every extravagance and dispose of every luxury, and turn the volume of their superfluities into channels for development of the outside millions. I would only have them apply their talents to devising a system

where there will be none rich at the expense of others, and substitute that system for the one they now operate, where the rich are rich because the poor are poor.

These are very moderate demands, and I cannot think that anything short of them will satisfy the spirit of revolution now abroad in the earth. It has been taken as axiomatic that we must have these differences of wealth, and assumed that they betokened some superiority of virtue in the wealthy, and that wealth is divinely appointed to continue its rule; but just these honored "truisms" the revolution is on its way to abolish. The reason I welcome revolution is that I do not want this noble transformation half done. To the man of trade, absorbed in operations that seem to him as organic as gravitation, I know this demand shades into complete madness; and just because he cannot see that it is not madness, I sorrowfully recognize that nothing will reach him and accomplish the change but revolution.

There is nothing that we may not cheerfully suffer for this event. If life is to be sterile, growing ever less endurable to those who rise above a certain line of enlightenment, the old way will do; but if we are still to prize it, if it is to hold our interest and respect, and preserve the qualities of virtue that the ages have loved, it must be established on new foundations. The introduction of christianity was the establishment of the world on new foundations. The old life was worn out. Our old life is likewise worn out. A new conception of living must replace it or we shall go to ruin. And we had better go to ruin than to live on as we are living, for the ruin to which our false manner of living is plunging us is worse ruin immeasurably than the outward dissolution of institutions. The ruin is in us, a dry, consuming rot; and we think that if we can keep the rot invisible by activity in the Chicago Board of Trade it will cure the rot. Christianity arrested the rot because the Roman Board of Trade went down in visible ruin and left the soil free for a new life; because 'the barbarian nations of the north flooded and drowned all which this civilization was, and thought, and knew, renewing the infancy of the world.' We are indebted to Matthew Arnold for setting us right about the value of these old civilizations. For the establishment of Christianity in the form that it took "the extinction of the old civilization was necessary," he says. And to teach the lesson of the evanescent value of civilizations compared with the creation of life, he continues: "Professor Clifford execrates Christianity as an 'awful plague,' because its success thus involved the ruin of Roman civilization. It was worth while to have that civilization ruined fifty times over, for the sake of planting Christianity through Europe in the only form in which it could then be planted there. Civilization could build itself

* Professor William James, *Psychology*, Vol. II, p. 441.

up again; but what Christianity had to give, and from the first did give in no small measure, was indispensable, and the Roman civilization could not give it." *

What we call our civilization, is nothing compared with a new system of life. Our civilization can be reproduced, but if the new life is lost it cannot be recovered. Civilization can build itself up again; but what the spiritual germ now seeking entrance to the world has to give is indispensable, and our civilization cannot give it. I can only say of those who are eloquent about the value of our civilization, that they, like Professor Clifford, had they lived in the days of Rome, would have defended the Roman civilization against the coming Christianity. But most now accord that it was altogether well for that civilization to fall. Two thousand years after an event it is easy to be on the right side about it. Two thousand years from now none will be timid to say that the nineteenth century civilization was not worth preserving against the thought which had in it the new creation of the world.

But whatever the opinion of the fortieth century may be, the edict has surely gone forth in the renewed consciences of many, that if by any means at the disposal of man it can be prevented, no one shall much longer inflict suffering on another under the mask of hereditary practice, or industrial rights, or enacted laws, making their lives hard and dull. The men who profit may say, This is economic necessity, or, It is legal. The defrauded reply: We do not care for law or economic necessity; we are suffering and you are the cause. The first may exclaim, But you will not destroy society? Do not rashly bring on the dissolution of that which is so hard to build again! The lower millions return, Do not think we will forever keep you in fatness and suffer you to make our lives unlovely and cheap, though the world comes to an end for what we do. We are at last spiritually emancipated and we must break the yoke that kills us, or take our own lives in pusillanimity and self-contempt.

And they are right. It will be worth while to have our civilization ruined fifty times over, for the sake of planting the new life principle among the races. We do not want to keep up a civilization in which the abominations of our's survive. But it is not proved that civilization need go down to plant the new life. The revolution is going on while we sleep.

PLASMOGENY.

BY DANIEL BRIGHT.

It is an established fact that protoplasm is the physical basis of life and the primary condition of all organic matter and organized bodies. And Prof. Haeckel has conclusively shown that the germ-cells of the highest vertebrate animals down to the moneron have all an equal form-value. Even the nucleated egg-cell of the

human organism is, in the process of fertilization, reduced to a non-nucleated germ stage, the so-called "monerula" form.

But how can there be so vast a difference of organic motor-value as exists in so small a capacity and sameness of form? The involution of the highest complexity of organic motion into the purest physical simplicity is the most profound process in Nature, and propounds, Sphinx-like, the deepest problem for mankind to solve.

This primary organic substance contains, however, higher properties and attributes than those at present demonstrated. Science has shown its form-value and its chemical composition; but beside these it possesses bio-chemical and histogenetic value, biogenetic quantity and psychic quality. But these higher properties lie beyond the reach of merely artificial experimentation, since in the process of chemical analysis that peculiar motion which distinguishes animate from inanimate matter is of necessity destroyed. That vibration which we denominate the bio-chemical and histogenetic motion, and which both organizes and preserves the organized bodies, being driven out, the hitherto animated body becomes inanimate and the process of decay and decomposition sets in. We may call this peculiar dynamic property the *anima*, and this, in connection with the still higher attributes, constitutes what we claim to be the unknown, but knowable truth, and also truth which for the time is unknowable.

Two germ-cells of these diversified organisms, from the moneron to the human egg-cell, are like sensitized plates on which photographic impressions of various objects have been made, which however must pass through a certain course of "development" in order to bring out and fix the images or pictures, and display their diversities. The undeveloped plates have all equal chemical properties and equal form-value; yet the greatest diversity is here contained in perfect uniformity. There is a "thing" involved in the atoms which cannot be weighed, or measured, or taken cognizance of by any of the five senses of man.

The difference between the impressed photographic plates and the parent-cells of the various organisms is this: the one receives its impression by a non-animalizing motion, the others by animalizing molecular vibrations. Hence the one contains an inanimate form and picture, the other an animated image and living ideal. The one comprises purely chemical color-vibrations, the other organic and histogenetic, and the still higher molecular motions of a psychic nature. But no purely chemical nor physico-chemical experimentations can develop these vital impressions made on those plastic bodies, and fix them in material form-expression.

Let us now inquire into the question: What produces bioplasm? To this we lay down the postulate that there is a force, or vibratory motion in Nature which compounds the elements into these basilar life-forms and this primary organic condition and holds them in the plastic, animalized state. This plasma-producing motion is the primary as well as the ultimate factor in the vast laboratory of Nature; it is the Alpha and the Omega, the beginning and the end of all organic matter and organized bodies. Every vegetal organism is a botanical retort in which this peculiar motion compounds the elements into the primary substance of all-organized forms; and every animal organism is a bio-chemical retort in which the vegetable plasma is animalized, and biogenetically and psychically qualified.

Our observation teaches us this fact: No organism can raise the propagative protoplasm into a higher degree of complexity of organic motion than its own. Hence these laws: 1st. Every parent-cell is described and circumscribed in its development and growth by the degree of this motion hereditarily transmitted to it by the parent organisms. A fountain cannot rise higher than its source. 2nd. By the law of transmission the parent organism limits this motion in the process of involution and evolution of the propagative cell, or germ.

* God and the Bible, Preface, xxiii.

Viewing now the human body, the most complicated mechanism of nature, we find two great centres, the brain and the heart, which, with their systematic ramifications, form the two principal systems in the vital economy of its nature. The contents coursing through one of these systems, the blood, constitute the building material of the organism. Here we find plasma in a fluid state, in an organic but unorganized condition, a chaotic mixture. The other system, the brain, the spinal cord and the nerves, constitutes a cosmos, or a little universe. All the substance of this system is that condition of plasma which I would call cosmically integrated bioplasma, which is the physical basis of all the higher functions of the psychical and spiritual attributes of man, or mind. In it resides the ego-subject and the ego-object, the legislative and the executive, the ego that evolves and organizes and also the ego that is being evolved and organized. There is an interdependence between these two factors, or focalized centres of energy. They constitute an inseparable duality, or, in other words, a differentiated unity.

The accumulated mixture of vegetable and animal plasma, of which, after digestion, the food taken into the body consists, is in a state of disarrangement and disorder. For, although the individual cells have all an equal form-value, they are vastly different in their molecular motion. When these structureless sacs or cells enter the human blood they are gradually charged from the brain, through the nervous system, with a higher degree of vital motion, until they reach the degree of motor-complexity of the human organism.

Naturalists have traced anthropogenesis, or the evolution of man, with a great deal of research and skill, from the earliest ages of organized life on our planet, through phylogeny, or tribal history, deduced from evidence gathered from paleontology and biology up to the present. But they deal more with morphology, or the forms of organisms than with physiology and psychology, or their functional actions and their higher mental attributes. But they have traced man's history not only phylogenetically, but also ontogenetically. In embryology and metamorphology they describe very minutely the development of the human organism from its parent-cell. This displays the subject of evolution on a smaller scale, and brings it within the grasp of the human intellect and the comprehension of the finite mind. The subject, however, has hitherto been investigated principally from the standpoint of morphology and zoology. Prof. Haeckel says: "The germ-history of the functions, or the history of the development of vital activities in the individual, has not yet been accurately and scientifically investigated." This is evident. Such investigation—into "the development of the vital activities in the individual"—lies in a different direction. It will change the question from a morpho-zoological to a psycho-physiological one.

The investigation into the development of the dynamics of the individual in embryology does not only vastly enlarge the subject itself, increasing it in importance and interest, but it also opens an avenue into a new field of research, and leads into an unexplored domain of physico-philosophy. Ontogeny (including embryology and metamorphology), or the evolution of the fertilized egg-cell into the perfectly developed human organism, is the compressed reproduction of phylogeny, or the formation of the many various species of animated forms in Nature; and the biogenetic quantifying and the psychic qualifying of the plasmion or plasma into the fertilizing sperm, is the compressed reproduction of ontogeny. The adult human body,—the result of ontogeny and further growth,—is the compressed or miniature expression of all animated forms of this mundane sphere or planetary cosmos; and the very active "protoplasmic thread" is the compressed or minimum expression of the adult human being. In it man is reduced to extreme concentration, and compressed into the least physical form; the human life-forces are brought into ultimates and into the low-

est condition of condensation; the organizing motions are geometrically proportioned, arithmetically computed to the polarity of the human body, and focused in its image which is impressed, a living ideal, on the atoms, or plastidules, of the protoplasm, constituting man in extreme compression, condensation, and concentration with a rudimentary body,—a single cell,—which we call a caudated nerve-cell, or a brain-centre.

The investigation of the unfolding of the vital activities in embryology, or the transformation of the potential into kinetic energy, naturally leads into the investigation of the *infolding* of the vital activities in the individual, or the transformation of kinetic into potential energy in the energizing process of maturing simple plasmion into the specialized cell or fertilizing germ. This we call Plasmion-history, or the dynamo-involution and plasma-evolution of propagative protoplasm, or, briefly, Plasmogeny.

CORRESPONDENCE.

SCIENCE AND ZOÖPHILY.

To the Editor of *The Open Court* :—

While on a visit to Mrs. Charles Bray, and her, sister Sarah Hennell, at Coventry, England, they called my attention to an anonymous attack on me in the London *Zoöphilist* (Oct. 1), suggestive of a tendency in "Zoöphilie" to adopt the fang along with the cause of the animal. Miss Sarah Hennell (author of "Present Religion") and Mrs. Bray (author of "Elements of Morality," "Our Duty to Animals," and other little books that should be in every home and school) knew perfectly well the injustice of the attack, but expressed a doubt whether any reply would be admitted in the paper. Possibly their doubt was well-founded, for although my reply was promptly sent, I find the same article rehashed in *The Open Court* (Nov. 13), without any reference to my answer.

The word "Zoöphilie" is not in my Webster, but it appears to mean the sacrifice of man to animals. Being only a man, I should have been more careful to keep far from the knife of the *Zoöphilist* vivisector. I gave myself away, in my article on "St. Anthony's Day," by wrongly placing the date of the English Society for Prevention of Cruelty to Animals. Graciously, too; for the substance of my contention is that the modern sentiment towards animals came through the discovery of man's physical relationship to them. This discovery long antedates Charles Darwin, who merely found clue to the process by which the development of man took place. Following Buffon, who said "There is but one animal," Erasmus Darwin's "Zoonomia" (1793), Goethe, Lamarck, and Geoffroy Saint-Hilaire, proclaimed the unity of organic forms, and caused wide-spread excitement. Thomas Carlyle told me that in his youth there was a mock debate among college students, whether man came from a cabbage or an oyster. The idea was thoroughly popularized, and it was when the scientific eyes of all Europe were bent on the problem afterwards solved by Charles Darwin, that the first Society for Prevention of Cruelty to Animals was founded in 1824. According to Chambers' Encyclopedia our American Societies for Prevention of Cruelty were all founded since the publication of Darwin's "Origin of Species," and I was not aware that the English Society was earlier. Probably the English bulls and bears (baited down to 1835), and the dogs that drew London carts till 1839, and domestic animals first protected in 1845, were equally unaware of so long an existence of the Society. I was writing in Rome, far from any English Library of reference, and could only make inquiries of persons I supposed well-informed. And although Edward Berdoe triumphs over my *erratum* in your columns, the article in the *Zoöphilist*—which he either wrote or plagiarises—shows that he did not know the date himself. In answer to my assertion that the said So-

cieties followed Darwin's "Origin of Species," he there replied, "So post hoc ergo propter hoc!" In thus arguing that the Society was not "on account of this because after this" the Zoöphilist adopted my error, betraying an ignorance prevailing in its own London office beside which mine in a Roman hotel seems rather venial. In fact, these Societies, though so Christian and biblical, according to Zoöphilists, are not alluded to in most Encyclopædias—whether religious or secular,—and my censor probably found his dates where I did, in a brief paragraph added to the new edition of Chambers.

With reference to the omission from my essay of a tribute to St. Francis d'Assisi, I can only say that an effort to repair this oversight failed because of my great distance from *The Open Court*. I could not, indeed, load its columns with references to the moderns—like Cowper and Coleridge—who have written tenderly of animals, but I ought to have mentioned the old Saint of Assisi, who used to say "I thank the Lord my God for my little sisters the birds," and similarly fraternised with other innocent creatures around him. I cannot wonder that my pious critic, in his inability to cite a text from the Bible, or an edict from any church, advising compassion, for animals, should be jealous for this voice from Assisi, which alone broke the indifference of a thousand years to the animals—though Pope Innocent III called it the voice of a madman. And, by the way, there is a significant reference to this Saint in Neander's Church History: "That sympathy and feeling of relationship with all nature, by virtue of its common derivation from God as Creator, which seems to bear more nearly the impress of the Hindoo than of the Christian religion [led] him to address not only the brutes, but even inanimate creatures, as brothers and sisters. He had a compassion for brute animals, especially such as are employed in the Sacred Scriptures as symbols of Christ. This bent of fanatical sympathy with nature furnished perhaps a point of entrance for the pantheistic element which in later times found admission with a party among the Franciscans." I find this quotation from Neander in the "Cyclopædia of Biblical, Theological, and Ecclesiastical Literature," (Harpers, 1870) edited by the eminent Methodist Doctors of Divinity, McClintock and Strong, without any remonstrance against the description of the Saint's "Zoöphilist" as "fanatical," and rather Hindoo than Christian.

If our "Zoöphilists"—who have had to coin a name for their movement, despite their claim for its Christian character—will carefully study the literature of folklore, they will learn that many of our Fairy Tales, in which animals figure, originated as Hindoo and Buddhist parables showing man's ingratitude to animals that had helped him. For instance, "Puss in Boots," having made a vagabond into a Marquis, was in ancient versions afterwards left to the dunghill. Such tales after their migration into Christendom, generally lost the "morals" that pointed them, through the indifference of the Christian world to animal sufferings. This could not have been so had the Bible taught consideration for animals apart from advantages derived from them by mankind, and whether treading out our grain or not. I do not forget a tender verse in the oriental poem of Job, "Who provideth for the raven his food?" nor related verses of more strictly Hebrew origin which ascribe a certain watchfulness of the deity over creatures he has made. Perhaps this is what my critic means when, after saying that "an examination of the Old Testament with the aid of Cruden's Concordance" will rectify my error, he gives it up and says, "The teaching of Zoöphilist is implicitly if not explicitly in the Bible." But why is it not there explicitly? The demand that Jehovah's altars shall reek with animal blood is explicit enough. The unchecked dominion of man over the animals is explicit. "Be fruitful, and multiply, and replenish the earth. And the fear of you and the dread of you shall be upon every beast of the earth, and upon every fowl of the air; with all

wherewith the ground teemeth, into your hand are they delivered. Every moving thing that liveth shall be food for you." What can a biblical Zoöphilist say to a vivisectionist who finds in such language "implicit" authority for cutting up animals as food for the scientific mind?

People intelligent enough to read *The Open Court* need not be reminded that personalities are the natural resort of disputants in dilemma. If Edward Berdoe could find texts he would not substitute fictions about myself. There was a person of his name who once attended my ministry in London, and who, I have heard, became a Catholic. If this be my accuser, I cannot think his new faith has benefited either his veracity or his manners. He says of me: "Some years ago I heard him defend the atrocities of vivisection in a lecture at South Place, London, when he demanded the abolition of the English restriction on physiological experiments." This is false witness. In a discourse on "Our poor relations, the Animals," and incidentally in other discourses in London, I uniformly maintained that vivisection for purposes of instruction, or of demonstration should be legally prohibited; and that it should be allowed only under jealous restrictions to specialists of capacity engaged in definite researches. I gave my congregation a careful account of the manufactured models I had seen in France, where the forms of typical species of animals were distributed over a table, and put together again,—every minute part exhibited,—and I insisted that these should alone be used in the education of physicians and surgeons.

I was indeed repelled from the anti-vivisectionists, now called Zoöphilists, by the venomous denunciations by some of their leaders of eminent scientific men who did not agree with them. Edward Berdoe's animus towards myself, who never met him but kindly, is a specimen of the spirit with which I could not work. Nor did I join the Society for the Prevention of Cruelty, partly because they never invited aid from so heretical a teacher (who as a foreigner needed invitation), and also because of their snobbish silence concerning the chief cruelties of England,—the aristocratic cruelties of the bearing-rein, fox-hunting, the battue, pigeon-shooting, and the repeated chasing of "Her Majesty's favorite hind." Against all forms of cruelty and inhumanity I did not fail to bear witness in London, and if Edward Berdoe has indeed become a Catholic, I hope he can say as much of his priests and prelates. In the meantime he may be advised to learn the amenities of controversy, also its equities. He should know, for instance, that it is not fair, in criticising an opponent, to insinuate that he has said what he never said. He satirically puts in inverted commas, as a quotation, "the exploded superstition known as Christianity." Who ever said that, or anything like it? Probably nobody.

It is hard on the animals after ages of dumb suffering, that their cause should fall into the hands of foolish and abusive advocates, but the new moral sentiment concerning them will, I believe, survive even such patronage, based as it is on a scientific conviction of their fellowship in our human pains, and to a large extent in our affections and emotions.

MONCURE D. CONWAY.

BOOK REVIEWS.

THE RAG-PICKER OF PARIS. By *Félix Pyat*. Translated from the French by Benj. R. Tucker. Boston: Benj. R. Tucker, 1890.

This story is intended to depict the darkest phases of Parisian society during the period between the Restoration and the Revolution of 1848. That the Communist leader has been successful in writing a powerful romance is undoubted, but the abruptness of its dialogue betrays its original form as a sensational play. That it was written at first as a drama will perhaps also account for the fact that some of its strongest situations are marred for a reader

by their improbability. Victor Hugo wrote to his author that in his play he had "proved the royalty of genius and the divinity of love," but to us it appears absurd, as has been done, to speak of Félix Pyat's romance as a rival of Victor Hugo's "Les Misérables." It is more of the nature of Eugène Sue's "Mysteries of Paris," and although virtue is finally triumphant over vice, virtue is rare and usually weak. The real object of work is to glorify the "Commune"—"each his own soldier, his own king, his own master." This is the apotheosis of anarchy and is not consistent with the social ideas of the New Philosophy. The real hero of the romance is the "workman with the hammer," who occasionally appears on the scene, and probably lives to act a great part in the approaching Revolution, while Father Jean the Rag-Picker, the self-denying guardian of Marie, seeks to end at the bottom of the Seine the struggle between his higher nature and his lower instincts. Ω.

ONE LIFE: ONE LAW. By Mrs. Myron Reed. New York: John W. Lovell Company.

This is a very thoughtful production the text of which is: "In order that the Ideal may become the Actual, truth is revealed through consciousness; formulated in philosophy; demonstrated by science. Self-consciousness is the truth in which all other truths are known." Under the heads of the "Law of Natural Selection," the "Struggle for Existence," "Inheritance," "Use and Disuse," and "Surroundings," the authoress gives a sketch of the modern theory of organic development, and applies its laws to the development of the religious life. Ω.

NOTES.

This number contains Mr. Morrison I. Swift's reasons "Why we want a revolution." For the statement of our position, we refer our readers to the editorial article in No. 166, where will also be found a presentation of Mr. William Matthews' views concerning the use and abuse of money. We are working for progress, for enlightenment, for the amelioration of the race by disseminating, to the best of our ability, a deeper insight into the nature of things, but we cannot endorse the views presented by our contributor.

On the 15th of October the Society for Natural and Medical Science, at Amsterdam, celebrated the one hundredth anniversary of its existence. This centennial celebration receives a high significance from the fact that three hundred years ago was discovered in the Netherlands the most important instrument of investigation of modern times, the microscope; in 1590, the spectacle-glass-cutter of Middleburg, Zacharias Jansen, made the first compound microscope. The first naturalists, also, who employed this invaluable instrument of investigation in the observation of invisible nature, were Hollanders; Jan Swammerdam and Leeuwenhoek. When, ten years ago, the two hundredth anniversary of the death of Swammerdam was solemnized, the "Genootschap tot Bevordering van Natur, Genees en Heelkunde te Amsterdam" determined to establish to his enduring memory a gold medal, to be conferred every ten years upon the naturalist who, during this decennial period, had performed the most important work in the domain of microscopical natural research. The first "Swammerdam Medal" was received in 1880 by the Nestor of German zoölogy, the distinguished microscopist, Karl Theodor v. Siebold, of Munich. The second presentation was made this year to Prof. Ernest Haeckel, of Jena, in recognition of his ten years' investigations into the microscopical life of the deep seas, which he carried on in the years 1877-1887, with the material obtained by the "Challenger." About 4,000 new, and for the greater part quite original, animal species which Haeckel discovered in the wonderfully rich sea-slime brought in by the "Challenger," are described by him in four volumes of the Challenger work and illustrated in 230 plates. Professor

Haeckel had accepted an invitation to the above named Society, and was present at its centenary. After he had taken the gold Swammerdam medal from the hands of the President, he addressed the Society in a speech of thanks, in which, on the one hand, he laid stress upon the intimate connection of German and Netherlandish science and art, and on the other hand, pointed out the reciprocal influence of empirical research and philosophical enquiry, with especial reference to Spinoza, the contemporary of Swammerdam. In the great and animated banquet which followed the centennial ceremonies, three distinguished early pupils of Prof. Haeckel also took part: Prof. Fürbringer, of Jena, who for ten years occupied the chair of anatomy at Amsterdam with most commendable success, and then in 1888 returned to Jena to occupy a like position; his successor to the same Netherlandish instructorship, Prof. Ruge (of Berlin); and Prof. Engelmann, (of Leipzig) professor of physiology at the Utrecht University. Besides the diploma as honorary member of the above named society, Prof. Haeckel received a second diploma from the Royal Netherlandish Zoölogical Society "Natura artis magistra."

The Popular Science Monthly for December contains a translation from the *Revue Scientifique* of a communication recently made by Prof. H. Hertz, to the Heidelberg Congress of German Naturalists and Physicians, on the Identity of Light and Electricity. It is a popular résumé of Prof. Hertz's late electrical experiments and researches, a full exposition of which, as our readers will remember, was given with diagrams of apparatus, etc., in the pages of *The Open Court* over a year ago, from data sent us by Prof. Hertz himself.

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The Open Court.

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DESIGN IN NATURE.

At a meeting of a scientific club lately, a discussion was held on the subject: "Is evolution directed by intelligence?" This question touches the very heart of religion and science; and we cannot shirk it if we desire to attain to any clearness and comprehensiveness of view concerning the most vital problems of human existence.

Before we can answer the question proposed, we must first ask what do we understand by intelligence. We must analyze its meaning and separate it into the elements of which it consists.

Intelligence comprises two elements: (1) We mean by intelligence design, plan, order, harmony, conformity to law, or *Gesetzmässigkeit*; and (2) when speaking of intelligence we think that there is attached to it the element of feeling or consciousness.

Feeling by itself has nothing to do with intelligence; yet consciousness has: consciousness is intelligent feeling. A single feeling, a pain or a pleasure, as long as it remains isolated cannot be called intelligent; yet it acquires a meaning as soon as it refers to one or several other feelings. For thus feelings become representations of the surrounding conditions that produce feelings. Consciousness is nothing but a co-ordination of many feelings into one harmonious state. Beings in possession of conscious intelligence we call persons.

Now we ask, Can there be design which is not connected with feeling? Can there be order or plan without a conscious being who made the plan? We say, Yes.

The crystallization of a snowflake is made with wonderful exactness, in agreement with mathematical law. Is this formation of snow-crystal manufactured with purposive will, by a personal being? A mathematician knows that the regularity of forms necessarily depends upon the laws of form, upon the same intrinsic order which is present in the multiplication table; it depends upon the arithmetical relations among the numbers.

Is a personal intelligence necessary for creating the laws that produce the harmony of arithmetical proportions? Is a personal intelligence necessary for making the angles of equilateral triangles equal? Certainly it is not.

Suppose that some substance crystallizes at a given angle. Necessarily it will form regular figures shaped according to some special plan.

Suppose again that certain cells of organized substance, plant-cells or animal-cells, perform special functions, will they not in their growth exhibit a certain plan in conformity to their nature not otherwise than a crystal? They will, or rather they must; or can we believe that the interference of personal intelligence is necessary to apply the plan to the growth of organized substance? Organization is so to say crystallization of living substance; it is growth in conformity to law.

The growth of a child takes place unconsciously, not otherwise than the growth of a flower. The consciousness developed in the former is the product, not the condition of its development; it is the product of organization. The consciousness of man is the highest kind of systematic co-ordination of feeling that we know of, and therefore we say that he is endowed with intelligence. Man is a person.

Personality is not the annihilation of the mechanical law; yet through the introduction of feeling the mechanical law that governs the changes and innumerable adaptations of a person, becomes so complex that it at first sight appears to us as an annihilation of the mechanical law.

The hypothesis of a personal intelligence is not needed to explain either the design of nature, or the plan of evolution, or the gradual development of nations and individuals, which processes are all in rigid conformity to law. At the bottom of all cosmic order lies the order of mathematics, the law that twice two is always four.

Personal interference is so little necessary to produce regularity according to some design with any exactness, that it would even make it all but impossible. If man desires the execution of some work with minute exactness, he has to invent a machine to do the work. A machine performs its work with rigid immutability. And a machine, what is it but an unfeeling and an unconscious,—a mechanical,—intelligence? Personality, what is it but the power of constantly renewed adaptation? Personality, therefore means mutability.

Suppose a book were written and not printed; sup-

pose it were produced by the conscious intelligence of a personal being, and not mechanically by a machine; could we expect the same minute exactness? Assuredly not. It would be witchery to adapt anything in close and rigid conformity to law, without machine-like unconscious intelligence.

Suppose that the planets were run by some personal being; that they were constantly watched with conscious wisdom and regulated by purposive adjustment; we could not trust our safety a moment on this planet. Mechanical regularity in minutest details is all but impossible in the work of personal intelligence.

* * *

A machine has no feeling and possesses no conscious intelligence; yet a machine must have been invented by a conscious and premeditating intelligence. A machine proves the presence of a designing person somewhere. And the question arises: Could not the Cosmos be considered as a machine invented by a great and divine person, designed for some preconceived end?

Even though there were no objections to this rather child-like and antiquated anthropomorphism, this conception of things would be of no use towards explaining the cosmic order. A machine is not invented by an inventor as a fairy-tale is conceived by a poet. A machine can work only if it conforms to that impersonal intelligence which we call mathematical necessity. It is the latter that makes the machine useful, and it is the latter that has to be explained.

If God made the world as an inventor makes a machine, he had to obey the laws of nature and to adapt his creations to the formulas of mathematics. In that case, however, the Creator would not be the omnipotent and supreme God; there would still be an impersonal Deity above him. In that case the Creator would be no less subject to the cosmic order than we poor mortals are.

Show me by any convincing argument that the cosmic order represented in so simple a statement as "twice two is four" had to be created arbitrarily by some conscious intelligence, and I shall willingly and without hesitation return to the anthropomorphic belief in a personal God—a belief which was so dear to me in my early youth. Yet so long as the cosmic order must be recognized as uncreated and uncreatable, as omnipresent and eternal, as omnipotent and irrefragable, we must consider the worship of a personal God as pure idolatry.

* * *

But this solution of the problem—is it not dreary atheism? It is not, or it is—according to our ability to receive the message of the necessity, the irrefragability of the Formal Law.

Our theologians maintain that the order of the

cosmos proves the existence of a deity. I maintain that it does more: The order of the Cosmos is itself divine. It does not prove that there is a God outside the universe who made the cosmic order; it proves the presence of a God inside.

Is the order of the Cosmos void of intelligence? It is without feeling, but surely not without plan or design. The laws of nature represent design; they are embodied design. The law of gravitation, for instance, does not act with consciousness, yet it represents order. It describes the regularity of the fall of a stone as well as of all the motions of the heavenly bodies in their wonderful order.

The immutability of the cosmic order disproves a supernatural God, but it proves an immanent God. And this God cannot be a person. He is more than a person. God is called in the Old Testament the Eternal, he is represented as immutable. Can a person be immutable? Is not personality embodied mutability, is it not adaptability to circumstances? The divine order of the Cosmos as represented in Natural Laws stands above all mutability—unchangeable, inadaptible, eternal.

* * *

This God, the immutability of impersonal, or rather of superpersonal intelligence, is the condition of science and the basis of ethics. If natural laws were personal inventions which could be changed at the pleasure of their inventor, science would become impossible, and morality would become an illusion. What is morality but our effort to conform to the order of nature, and above all, to the laws that shape society?

This impersonal intelligence is higher than personal intelligence, as much so as the laws of a country are infinitely higher and holier than all its citizens, its princes and kings not excepted. There is a rule in monarchies that the sovereign stands above the law. Is it necessary to explain that this idea is a farce, an illusion, a felony against the sanctity of the law? Similarly, the idea of a God, fashioned according to the personality of man, is a blasphemy of the higher God, of that God who alone is God, of the Deity that passeth all understanding, *i. e.*, all conscious reasoning and personal wisdom.

The worship of a personal God is the last remnant of paganism. Our religious convictions can and will not be purified until we apprehend a glimpse of the grandeur of a higher view.

There is a superhuman Deity, whose glory the heavens declare, and the firmament showeth his handiwork. Day unto day uttereth speech, and night unto night showeth knowledge. There is no speech nor language where their voice is not heard. The whole Cosmos is permeated by eternal and divine law, by intelligence, by design.

The whole world is a glorious revelation of its immanent God. Yet this revelation is concentrated in man's personality. He possesses, not only a conscious intelligence reflecting in his soul the divinity of the All, but also the aspiration of moral ideals inspiring him to conform to the cosmic order that rules supreme from Eternity to Eternity.

THE HIDDEN SELF.

BY ALICE RODINGTON,
(CONCLUDED.)

Innumerable experiments by various psychologists appear to show that in cases of anæsthesia of one hand or of part of the body; of suggested blindness with regard to certain objects, the second self is conscious precisely where the first self is blind, deaf, or unconscious of feeling. Many curious experiments are given in "The Proceedings of the Society for Psychical Research," for January, of which I will give one. The subject—not hypnotized—had a pencil put in his anæsthetic hand, hidden from his view by a screen. Many pricks were given to this hand, without the least attention being paid by the subject. The left hand, however, being gently pricked elicited an expression of pain and "What did you do that for?" "Oh to see if you were asleep," was the reply. The anæsthetic hand was then urged to write, and did write, to this curious effect, "You pricked me fourteen times with a (here followed a rude representation of a pin) and you expect me to write for you."* M. Janet believes that the various phenomena observed in planchette writing, table rapping, etc., need neither be ascribed to imposture on the one hand, nor to the influence of spirits on the other; that the writing of the planchette, and the rappings of tables may both convey statements which cause genuine surprise to the 'conscious selves' of the experimenters, and that they really represent expressions of opinion by the 'sub-conscious selves.' Often the medium when of a *caractère sérieux*, is extremely indignant at the indiscretions and follies of the planchette writer. My character cannot change in this sudden way, says the unfortunate medium scandalized at signing himself "Pompon la Joie," an individual whose written pleasantries were more than doubtful. Or the planchette self will suddenly become tired and write, "It is time to go to sleep, go to bed," after which no more communications are to be obtained. M. Janet truly remarks that if the spirits of the dead were the real authors of the commonplace remarks, or of the nonsensical or superstitious utterances attributed to them in spiritualistic séances, "Ce serait vraiment renoncer à la vie future, s'il fallait la passer avec des individus de ce genre." Corneille, he says, through the lips of a medium makes bad verses,

and Bossuet signs sermons of which a village curé would be ashamed.*

M. Janet had some curious experiences with regard to blisters caused by suggestion. One of his patients, Rose, had hysterical cramps of the stomach. M. Janet told her he would apply a blister to the affected part. Some hours later the effects of the imaginary blister appeared, the skin was dark red and puffed up. But strange to say the mark had as it were four corners cut off. M. Janet remarked to Rose that her blister had a strange shape. "Don't you know," was the answer, "that the corners are always cut off the 'papiers Rigolot' so that they should not hurt." Her preconceived idea of the form of the blister had thus determined the form and dimensions of the red patch. On another occasion the suggestion was made that the blister should take the form of a six-rayed star, and the red mark took precisely this form. Léonie had a suggested blister of the shape of an S on her chest. All these imaginary blisters were successful in curing the hysterical pains of the respective patients. Rose, who suffered severely from hæmorrhage, said that she had formerly been benefited by ergotine.* M. Janet suggested that she should take a certain number of doses of this drug at stated times. Subsequently every two hours Rose went through all the forms of taking medicine from a spoon, persistently maintaining that she was doing nothing, and the most curious fact remains to be told, that the imaginary medicine cured the real disease. In numberless instances where the 'second self' is carrying out actions suggested during hypnotism, the 'first self' though wide awake is quite unconscious of these actions. Suggestions *unrecalled* are sometimes productive of embarrassing or inconvenient effects.† Some one out of mischief suggested to a patient that she should kiss the almoner of the hospital when she awoke. This suggestion was a constant source of worry to the unfortunate patient, who felt impelled to kiss the respectable almoner, yet at the same time seems to have felt the impropriety of the act. Nor could any one remove the impression. A patient N. . . who nicknamed herself Ninute, on one occasion remained refractory to everything M. Janet could suggest to her in the waking state, and to a lesser degree when hypnotized. She appeared to hear with difficulty, and to understand only with great effort.‡ "What is the matter with you?" at last said M. Janet. "I do not hear you; I am too far off." "And where are you?" "I am in Algiers, in the grand square." It was not difficult then to bring the patient back from her imaginary journey. When she considered she had returned to France, she gave a sigh of relief, and

* My copy of the Proceedings is nowhere to be found, and I am compelled to write from memory.

* *L'Automatisme Psychologique*, Part II, Chap. II, iii., *Résumé historique du Spiritisme*.

began to talk as usual. "Now will you explain" said M. Janet, "what you were doing in Algiers?" "It isn't my fault; it was M. X., who sent me there a month ago; he forgot to bring me back; he left me there. When you spoke and told me to raise my arm, I couldn't obey, I was too far off." This statement proved true so far that the patient had been sent to Algiers by suggestion, and the suggestion had never been recalled. The cases where the second (or one of the subordinate selves) is superior in intelligence to the conscious ego; and those where the two selves act at the same time—as with 'Léonie' and 'Léontine' seem to me inexplicable in the present state of our knowledge. But that every portion of the spinal cord and brain in ascending order should have a consciousness of its own seems only natural if the history of the individual is an epitome of the history of the race. That ontogeny is an invaluable guide to phylogeny is a fundamental axiom in biology.

It follows from this well-established fact that the spinal cord, and the various portions of the brain in ascending importance, have at different periods in the past history of the race represented each the "Ego"—such as it was. In the Acrania, (of which the Amphioxus is the sole living representative), all functions necessary for the preservation of life have been carried out by the spinal cord* alone. In Amphioxus the upper portion of the notochord functions as a rudimentary brain, sending off nerves to a pair of rudimentary eyes, and another branch to a ciliated pit, possibly representing an olfactory organ.

From Amphioxus onwards, we find a constant increase in complexity of structure and variety of function in the spinal cord and brain. Fresh parts are literally added on, but through all the stages of progress the "ontogenetic stages find their exact parallel in the phylogenetic development of vertebrates."† In the monkey anterior parts of the brain are found which are not yet developed in the dog; in man are developed frontal portions of the cerebral hemispheres which do not exist in the monkey. My theory is, that all parts of the spinal cord and brain retain by atavism the consciousnesses, from the lowest to the highest forms, which each possessed when it functioned as the ruling nerve-centre for the time being; and that each and all of these subconsciousnesses are, in a condition of health, subordinated to the highest cerebral centres, and each and all are carrying on natural and acquired reflex actions and thus leaving the superior ego free to carry on its own special work. Not only this. It appears to me that these subordinate portions of the brain and spinal cord have all shared

in the development of the highest centres. The Amphioxus and the brainless frog for instance, are placed under the same conditions, but the spinal cord and medulla of the brainless frog control an immense number of muscles and nerves which do not exist in the low fish; the spinal cord of the frog has been far more highly "educated" than the notochord of the fish. It is by this hypothesis that I would explain the power of articulate speech, and even of acquiring languages possessed by the subconscious centres, when the ordinary ego is to all intents and purposes, temporarily non-existent. A case came to my own knowledge of a lady who, deeply under the influence of chloroform, replied in French to a question addressed by the French governess to her husband; the governess being outside the door, and the door closed. The same lady startled the household with a violent scream, when a case full of books fell in the night; and then enquired what was the matter, who screamed, and why people had come running into her room. In both these cases whilst the dominant self was unconscious, the subconscious self was awake and equal to the occasion.

THE ETHICAL PROBLEM.

A REJOINDER.

BY W. M. SALTER.

Nothing but extreme pre-occupation has hindered my noticing earlier Dr. Carus's replies to my comments on his book (*The Ethical Problem*). I do not doubt his sincerity in wishing to come to an understanding, and with this desire in my own mind I offer the following remarks.

Dr. Carus says that the Ethical teachers agree that what he calls the basis of ethics is not needed. Now all that we are agreed about is that such a basis is not to be laid down as a necessary part of the Ethical movement—as something to which all members of the movement pledge themselves. But any individual in the movement can hold to such a basis, can feel the need of it and even maintain that without it there can be no rational ethics. This opinion may be held; the only requirement is that there shall be tolerance of other opinions. If one does not feel that he can belong to a society with others who think differently (whether as to the specific basis or as to the need of a basis in general) he of course leaves the society—or does not join it in the first place. For example, I myself believe that a true world-conception is of great importance, though I could not call it "a basis of ethics," as Dr. Carus does; I am in search of such a conception, and what elements of it I have already gained, those who hear me know; but I can respect others who are following different lines from my own and am glad to call them my brothers in an ethical fellowship.

Dr. Carus says that the Ethical lectures do not acknowledge the 'reason why,' presented by orthodox theology. By this 'reason why' he means the will of God. But any of us might regard whatever is right as the will of God, if he chose to. The opinion of any member to this effect we should have no right to challenge. Basing the right on the will of God is, however, another matter; and I think Dr. Carus is unjust to orthodox theology in assuming that it does so. Many are the theologians who regard God's will as identical with what is right; the few are those who regard God's will as the author of it. Can Dr. Carus instance another theologian of repute, besides Dymond, who did so? There may, of course,

* In its primitive condition as the notochord; a stage passed through in the embryonic state by the higher vertebrates, but persisting through life in one of the lower forms.

† Wiedersheim, "Comparative Anatomy of Vertebrates."

be others, but I do not happen to know of them. But even so extreme an opinion we should not have the right to exclude, so long as it did not injuriously influence actual conduct.*

Hence my own controversy with Dr. Carus will be hereafter purely in my personal capacity. It would be thoughtlessness and arrogance for me to allow all the windings, questionings, hesitations, affirmations of my own mind in a controversy like the present one to be regarded as representative of the Ethical movement. In speaking of the aim and nature of the Ethical fellowship, I do speak for the movement and am answerable to it; but in discussing questions of Ethical philosophy I speak solely for myself and am answerable to no one.

Dr. Carus says that I know no 'reason why' for my moral law (as he is pleased to term it), and that I imagine that to give a reason why "would be not to explain but to degrade morality." With all wish to be charitable, I cannot acquit Dr. Carus of a misuse of my language in this connection. A 'reason why' in the sense of an ultimate standard of right and wrong I have expressly admitted to be necessary. But after the standard has been found and, by the use of it, the right in a concrete case determined, the question is sometimes asked, why should we do the right, which is equivalent to asking why should our will be regulated by any 'ought' whatever? My answer was that we should do the right out of reverence for the right and it appears to me that Dr. Carus's language implied the same view. 'Reason why' is ambiguous; it may refer to standard and it may refer to motive. A motive is always, in one sense, a reason, but in a very different sense from that in which a standard is a reason. A motive is a feeling, a desire; a standard is an object of thought. Now there is what I call a properly moral motive—the desire to do what is right or to live in harmony with one's reason or to obey one's highest thought; these are but different expressions for the same feeling. In its fullness the moral motive is beautifully expressed by George Eliot, in her description of Dorothea (in *Middlemarch*): "She yearned toward the perfect right, that it might make a throne within her and rule her errant will." Asking for another motive beyond the moral motive practically means, what shall I gain by right action, what selfish advantage shall I have from it—but action under such motives is not moral action at all, and appealing to such motives (i. e., furnishing such reasons) is not explaining morality, but degrading it. Hence Dr. Carus's language as to my 'mysticism' is wide of the mark. He thinks that like other enthusiasts, I regard "science and all close scrutiny with suspicion," and that "the relentless dissections of an exact analysis appear as a sacrilege." I am actually amused at these words; for it is just the absence of close scrutiny into his ideas and exact analysis of them that I thought I observed in Dr. Carus. The clear distinction of things that differ, the avoidance of vague and ambiguous language are surely the first (or at least an indispensable) step towards the scientific understanding of any subject.

This inexactness still appears in Dr. Carus's use of the term "Intuitionism." "This view," he says, "if it means anything, means that the moral command comes to us in some unaccountable way, mysteriously and directly from some sphere beyond." Not so. Intuitionism, as used by Professor Sidgwick (to whom Dr. Carus refers and than whom there is no better authority) does not refer to

the source of the moral command at all, but to the immediate way in which we are supposed to know that certain things are duties. The obligation, to tell the truth, for example, is regarded by Intuitionists as a matter of direct perception, not as an inference or deduction from some other obligation. Intuitionism is not necessarily theological or supernaturalistic; and on the other hand utilitarianism even egoistic utilitarianism may be supernaturalistic, as it was in the hands of Paley. Yes, the evolutionary theory of Dr. Carus, if we give this name to the view that progress, and not happiness, is the supreme end, is just as capable of being ultimately interpreted in a theological or supernaturalistic manner; the rule, work for progress, for the development of human-soul life, may be interpreted as a Divine command as readily as any other rule. In fact, almost all the Ethical themes may be "intuitionist" in Dr. Carus's vague use of the term.

As to the distinction between Utilitarianism and Hedonism, I acknowledge that Dr. Carus has the right to make it, if etymology and not scientific usage are to determine such matters. The useful and the pleasant are certainly two distinct conceptions. Utilitarianism has always said that the useful was determined by its relation to the pleasant; but abstractly speaking, anything is useful, which serves an end, whatever that end may be. I have not called myself a Utilitarian, but I have been accustomed to say that I sympathized with Utilitarianism so far as it opposed the claim of Intuitionists to settle special duties by means of ready-made intuitions; but not in so far as it made happiness or pleasure (whether individual or general) the final end. Practically, as I think Mr. Hegeler was aware, I regard progress as a better standard than happiness. Whether it be an ultimate standard is another question, and I think it can hardly be that, since progress (if it be more than mere movement) implies some idea of a goal in the direction of which progress takes place. Utilitarianism, however, as every moral theory worthy of the name, distinguishes between moral goodness and material usefulness. Only a theory which sunk ethics to the level of mechanics would fail to do this. Bentham himself says: "Beneficence apart from benevolence is no virtue; it is not moral quality—it belongs to a stock or stone, as well as to a human being."

Failure to think out the implications of what he says seems to me to mark Dr. Carus's assertion that the stern facts of life teach us what desires should be suppressed and what wishes should rule supreme. I do not question the value of such experience as a teacher—but all on one condition, namely, that we wish to live, and more than that, that we wish others to live. Apart from such a wish, immorality is as consistent with the "stern facts of life" as morality. The fundamental problem of ethics is deeper than Dr. Carus imagines; and it is because he does not seem to me to go to the roots of things, that his ethics appear to be "something in the air." So far as I can see, it is a purely hypothetical or conditional morality that he gives us; if, for example, we wish for health, he says in substance we must regard the conditions of health—and aside from such a wish obligation has no meaning. The facts are, of course, the same whether we so wish or not; I do not question that many a "jovial companion" has been "buried in the bloom of life." The real question is, was there any obligation upon such an one to care for his life—not did he feel it or even could he be made to feel it, but did it (the obligation) exist?

Dr. Carus does not make a careful statement of my views as to the absoluteness of morality. I do not say that conscience is absolute. It appears to me necessary to distinguish between conscience and the moral law, just as we do between science and the facts and laws of which science takes cognizance. I fully admit the "facts of an erring conscience" to which Dr. Carus alludes. So physical science has varied and often erred in the past; but we do not therefore conclude that there have been no unvarying physical laws. Why is it not possible to allow that conscience is

* Dr. Carus thinks that our societies should be called "Societies for Moral Culture." I have sometimes thought that I should myself prefer such a designation, simply because it sounds less technical. But Dr. Carus's distinction between morals and ethics appears to me arbitrary; no thinking, conventional, or merely reflex action can properly be called moral. Again, Dr. Carus sees no need for our leaving the churches, in case it is duty simply that we are concerned for, since the churches also are concerned for the same thing. But is not Dr. Carus aware that almost no Christian church would receive a person to membership on the strength of a moral aim and purpose alone, that besides this, requirement is made of a confession in some theological creed?

a development and by no means infallible, and yet hold that there is an unvarying objective moral law? The real absolute of morality is in the objective principles, not in conscience or the subjective sense of them. This I have brought out in the very lecture from which Dr. Carus quotes, and which perhaps he had not time to read to the end (vide pp. 94 to 101 of *Ethical Religion*). Yet by the moral law I have in mind something quite different from a mere formulation of natural sequences (though I agree with Dr. Carus in holding them to be necessary and unvarying); I mean a commandment, a rule, an imperative—and the special moral rules are so many applications of the fundamental rule to the various special departments and situations of life. I have recently given my views on the important distinction between physical law and moral law in *The New Ideal* (Boston), June and October.

Dr. Carus recognizes the distinction between the leading principle in ethics and the philosophical view *back of* ethics. He however holds that such a leading principle must be derived from the philosophical view. This, so far as the words go, is perfectly clear and consistent. But before I can be sure of what they mean, I feel that I need an illustration of how the derivation takes place. It was because I thought that Dr. Carus would give us such an illustration that I took up "The Ethical Problem" with such interest. I have already recorded my disappointment; since not only did he not derive his ethics from his "monism," but he classed monism as one of the many "thought-constructions of the theorizing philosophers," to which it was not wise for an ethical movement to commit itself. If then, as Dr. Carus says, "without a world-conception we can have no ethics," it is difficult to avoid the conclusion that he has not given us any ethics himself. Will he not try to show in what way the principle of "truthfulness" or that of "the development of human soul-life" is to be derived from Monism—that is, in what way different from that in which it could be derived from Theism or from Materialism?

As to the "ethical stimulus" in my own case, I have not the slightest doubt, and acknowledge it reverently, that whatever I have of it is largely due to the influences of home and of the religious faith in which I was nurtured. But that faith did not include the view that God was the author of right and wrong; and so when my theistic confidence was disturbed, the foundations of morality were not shaken. The Divine will was one with whatever was right, according to my early teaching—and such a view made it perhaps easier to do the right, just as it is often easier for a child to do some task, if the parent asks it; but duty was not made to rest on the Divine will. At bottom the faith in which I was brought up was an ethical faith (just as prophetic Judaism was an ethical faith). I mean that it was a view of the universe dominated by ethical elements. Apart from the idea of a just, righteous and loving God, this view would have had little ethical value and imparted little ethical stimulus. It was justice, righteousness, love that had my central reverence, that have it still.

IN ANSWER TO MR. SALTER.

THE basic difference between Mr. Salter's and our own position will be pointed out in the Concluding Remarks to our discussion. I refrain here from answering Mr. Salter's reply in a detailed exposition. Mr. Salter repeats his objections, and in order to be explicit we should have to repeat the arguments set forth in former articles. We shall confine ourselves to a few concise remarks on six points:

1) We not only believe that 'a basis of ethics is needed,' but also that it has to be laid down as a necessary part of any ethical movement, that is started for preaching morals. No system of morals can exist without a basis. And who will preach morals without a clear and a systematic conception of ethics?

2) Mr. Salter distinguishes between two theological conceptions the one "basing the right on the will of God", the other re-

garding "God's will as identical with what is right." The distinction appears to us irrelevant, and has no connection with our present discussion.

3) Mr. Salter accuses me of a misuse of his language where I refer to his speaking of 'the reason why' of the moral law. After a careful consideration of the case, I find that the misrepresentation of Mr. Salter's view is entirely due to a lack of clearness on his part. The passage in question runs as follows:

"In fact, Dr. Carus gives no 'reason why' in the sense of a motive beyond the moral motive; and is well aware that to do so would be not to explain but to degrade morality."

I interpreted this sentence in the light of another passage of Mr. Salter's:

"Who can give a reason for the supreme rule? Indeed, no serious man wants a reason."

Mr. Salter in his present article explains the passage under consideration in the following way:

"A 'reason why' in the sense of an ultimate standard of right and wrong I have expressly admitted to be necessary. But after the standard has been formed... the question is sometimes asked, Why should we do the right?" etc.

What Mr. Salter understands by this second Why, which rises after the first Why has been settled, he explains in this way:

"Asking for another motive beyond the moral motive practically means: What shall I gain by right action, what selfish advantage shall I have from it?"

We admit that to ask the question "What selfish advantage shall I have from ethics?" would not be to explain but to degrade morality. But we must confess that this idea never occurred to us. Thus in the passage under consideration, we had no idea that Mr. Salter could understand by 'reason why' an exclusively egoistic motive. If he meant that, he should have said so. With all due appreciation of Mr. Salter's charitableness, we do not feel the need of it, because we are confident that if there was any misuse of language, it was not made by us, and we are not to blame for it.

Aside from the question of priority in the misuse of language, the objection we have to make against Mr. Salter still holds good, in so far as Mr. Salter maintains in other passages, especially in his book, that there is no reason for the supreme rule in ethics. He actually and repeatedly declines to derive the moral ought from the facts of experience, and thus he imagines that that something from which morality grows lies outside the pale of science.

We maintain that no standard is ultimate. Every standard of right and wrong has to be derived from the facts of reality. We investigate the laws of nature, of social development, of a healthy evolution of the soul, and our standard of morality is nothing more or less than conformity to these laws.

If the question is asked of a moral teacher, "Why should we do the right," this in our mind can mean only, "Why should we obey those rules which you lay down as right?"

Mr. Salter says: "We should do the right out of reverence for the right." Of course, we must have reverence for that which we should do. That which we should do, must be regarded as the highest we can think of. What we wish to do, must not be suffered to be taken into consideration where it conflicts with that which we should do. But considering the fact that we call that which we should do "the right", the prescript "to do the right out of reverence for the right" appears from our standpoint, as tautological.

4) I do not at all deny that the Intuitionist considers conscience as "a matter of direct perception"; yet at the same time I maintain that the Intuitionist considers the moral sense, the ought, duty, conscience, or whatever it may be called, as "a fundamental notion, ultimate and unanalyzable". This is the very expression of Professor Sidgwick. Science, it is supposed, cannot analyze conscience, it cannot explain its origin, and thus its existence must remain a mystery to us. See Professor Sidgwick's latest

article on the subject, "Some Fundamental Ethical Controversies" in *Mind*, October, 1889.

5) I read Mr. Salter's article "Obligation and the Sense of Obligation" in *The New Ideal*, where he compares duty with the physical law. Mr. Salter fails to make a distinction between the objective moral law in Nature, on the one hand, which is a physical law as much as gravitation, and duty on the other hand; the latter being the subjective formulation of our obligation to conform to the moral law. Mr. Salter says:

"Duty is like gravitation in that it is objective and yet unlike it, in that it (duty) is an ideal, rule, or command, and not a necessarily acting force."

The question arises, What is objective and what is subjective in duty. Mr. Salter says:

"The sense of obligation is just what appears to me to need to be clearly distinguished from the reality of obligation itself."

This "reality of obligation itself" is an unclear idea; yet I find that it appears in Mr. Salter's book under different names again and again. So long as Mr. Salter feels satisfied with this idea, he will naturally think that the cause of all our differences lies in a failure on my part to think out, as he says, the implications of my assertion that ethics must be based on facts. Mr. Salter's "reality of obligation itself" is a something that is not found among and cannot be derived from facts.[†]

6) Mr. Salter again expresses his disappointment at my treatment of the Ethical Problem. He says:

"Not only did he not derive his ethics from his 'Monism' but he classed Monism as one of the many 'thought-constructions' of theorizing philosophers to which it was not wise for an ethical movement to commit itself."[‡]

I have purposely avoided the terms "Positivism as well as Monism" because it is not these particular "isms" we fight for, but the ideas that generally go by these names. The word Monism can help nothing. It is not from a name that we expect salvation.

It would be ridiculous to demand that our presentation of Monism or of Positivism should be adopted either by the Ethical Societies or by any one without critical examination. Accordingly we class monism among those systems that have to be examined. But we demand that certain truths be recognized which considered as philosophical principles are generally known as positivism and monism. Positive ethics I have briefly characterized as "the principle of truthfulness." Truth is agreement with facts. We must base our conduct unswervingly upon a correct conception of facts. This implies on the one hand that we should shirk no effort, trouble, or struggle to comprehend truth, and on the other hand that we should never attempt to belie either ourselves or others. The ethics of Monism urges us to heed the most important truth in the realm of facts, namely, the oneness of all-existence. The ethics of Monism teaches us to consider man as a part of the whole universe. The moral man aspires to conform to the All and to the laws of the All; he longs to be one with the power in which we live and move and have our being. In obedience to this impulse man's soul grows; it becomes more and more a microcosm within the macrocosm.

P. C.

CONCLUDING REMARKS ON THE DISCUSSION WITH MR. SALTER.

Making a call of late on Mr. W. M. Salter, I enjoyed with him a conversation, in which we tried to understand one another, in order to arrive, if not at an agreement, yet at a clear statement of our differences. Mr. Salter complained of my presentation of the case, that I did not make distinctions which were necessary to

* The italics are Mr. Salter's own.

† For a further explanation see the end of the Concluding Remarks to our discussion.

‡ My answer to this objection is given in the article: "The Moral Law and Moral Rules." No. 164.

properly comprehend his position and that of the societies for Ethical Culture. He did not object to "a basis of ethics." Whereupon I said that the leaders of the Ethical Societies are perfectly right in not wanting to pledge their members to any religious or philosophical belief, yet they must themselves have a ground to stand on; they cannot preach ethics without a basis of ethics, for every ethical rule is the expression of a world-conception. By implication then, an ethical movement after all rests on a philosophical basis.

On my saying that the ethics of a spiritualist, of a materialist, of a believer in theism, of an Agnostic, of a Christian, a Jew, a Mohammedan and a Buddhist, actually differ, and that they must differ, Mr. Salter replied that "it was true, they might differ, but it was very possible that in *Großen und Ganzen* they might agree."

We take exception to this. Even the different denominations of the same religion, for instance Protestants and Catholics, have different ethics. I do not deny that certain ethical rules are regarded as binding by all the religious teachers of the world; there is a "common conscience," (to use Prof. Adler's term,) developing in mankind, but is not this common conscience, so far as it is not a mere incidental concurrence, the expression of a common world-conception? A common world-conception (viz., a positivism or a systematized statement of the facts, founded upon scientific investigation) is preparing itself in humanity and together with it we can observe the evolution of the ethics of positivism, viz., of ethics in agreement with facts, an ethics that can be analyzed and comprehended by science.

But this kind of ethics (positive ethics) is found insufficient by Mr. Salter. He maintains that the ethical problem lies deeper than scientific inquiry can reach. "Granted that the knowledge of facts is the basis of ethics," he said, "there is a basis below this basis. In studying facts, we are influenced by a purpose; we have some end in view, and we study facts and conditions in order that we may know how we shall attain that end. The deeper question is, then, What is the true end? And the bottom obligation is to regard and seek this end, when it is once rationally determined. What are our matter-of-fact wishes is a secondary matter."

Before answering the question as to this so-called deeper obligation I would ask and answer another question. What is meant by "obligation?" Obligation is simply a statement of ours; it is the formulation of facts for special practical purposes, very appropriately put in the shape of a prescript. The obligation formulated with reference to the facts of our existence, and the conditions of our existence, is already the bottom obligation; there is not a second bottom beneath it.

In that case Mr. Salter says, "your ethical commands are hypothetical; they are conditioned by the wish to be in harmony with society; the wish to be in conformity with the conditions of nature; the wish for life."

Certainly, the ethical rules are in this sense conditioned; for all we can say about the ethical ought is to state the facts as they are: the man who does not care for being a useful member of society, or who does not care for his physical, mental and moral health, who does not care for going to the wall and whose actions are expressions of this indifference, he will do harm to his fellow-beings and he will be doomed to perdition. His soul so far as it is possible will be blotted out, and his life will become a curse to humanity. These are the facts and the moral ought is a statement of such and kindred facts for pastoral purposes, or as a help for self-education.

Here, it appears, lies the ultimate divergency between Mr. Salter's view and our view. Mr. Salter finds, or believes he finds, an obligation of absolute authority beyond facts and beyond the realm of science. We cannot see that an obligation outside of the province of positive facts, the obligation of an absolute authority has any meaning.

This ethical view will naturally appear to him who holds it, deeper than positivism and broader than monism. To the monist however it must appear dualistic, to the positivist metaphysical, to the man of natural science, supernatural. The former standpoint recognizes a profundity where the latter finds a vagary.

P. C.

MUNERA PULVERIS.

BY JEFFERSON B. FLETCHER.

LUXURY lives and love lies dead.
Pleasure is king and beauty fled,
Fled with the souls of ideals slain,
Slain by Cain and the sons of Cain.
For a pitiful pittance of shoddy show
The world's grown gray, and the world must grow.
O young men! O maidens! O children of pride!
From *you* beauty fled, for *you* love hath died:
Oh! breathe on his frozen lips one kiss,
And the beautiful god will awake I wis,
And beauty come back from the dead world to this.

BOOK REVIEWS.

RACES AND PEOPLES: Lectures on the Science of Ethnography. By Daniel G. Brinton, A. M., M. D., etc. New York: N. D. C. Hodges. Chicago: A. C. McClurg & Co. 1890.

This well got-up volume, which is the outcome of a series of lectures delivered by the author as professor of Ethnology at the Academy of Natural Sciences, Philadelphia, was reviewed in *The Monist* of October last. Although some of its chief conclusions will not recommend themselves to the majority of anthropologists, it presents an array of facts which are not to be found collected elsewhere in so small a compass. The last chapter treats of *Ethnographic Problems and The Destiny of Races*. Dr. Brinton concludes that while all other races are either dying out or are stationary. "The great white race is gradually extending its empire over all continents and to the most distant islands." He is strongly opposed to what is known as miscegenation, but he believes that "when bigotry ceases on both sides, and free-marriage restores the Aryo Semitic stock to its original unity, we may look for a race of nobler capacities than any now existing." U.

A GRATEFUL SPIRIT AND OTHER SERMONS. By James Vila Blake. Chicago: 1890. Charles H. Kerr & Co.

It is not surprising that Mr. Blake was requested to publish these sermons. They contain many suggestive thoughts and pious reflections, clothed in language which makes them more readable than the ordinary run of sermons. Much liberality of mind is observable throughout and it is pleasing to meet with a Christian minister who can say, as does Mr. Blake, that he has found "great delight, mental and moral glow, spiritual inspiration," in reading the Scriptures of other religions besides the Hebrew and the Christian, finding in them the same moral and religious truths. Some of the sermons, such as "At Peace with Things," "Faithfulness," and "Old Age," contain much that may be of service in aiding the development of high moral culture. U.

REMINISCENCES. By Lucy N. Coleman. Buffalo, N. Y.: 1891. H. L. Green.

The story of a life spent in the interests of truth and freedom, and particularly in support of the anti-slavery agitation and in furtherance of the abolition of "Woman's Wrongs," as expressed by Mrs. Coleman. The *Reminiscences* are full of curious experiences, not the least of which was the interview of the authoress with President Lincoln, who avowed that he was not an Abolitionist, and would not free the slaves if he could save the Union in any

other way: "He believed in the white race, not in the colored, and did not want them put on an equality." The book contains excellent portraits of Mrs. Coleman and of her friend Mrs. Amy Post, a short notice of whose active life concludes the volume. U.

NOTES.

We understand that the Brooklyn Ethical Association has recently elected a number of Corresponding Members, resident in different parts of this country, in England, France, and India. The Association wishes to receive information, written or printed, upon any of the following topics connected with its work: (1) As to the location, organization, and work of other societies, clubs, or classes with objects similar to its own; (2) Information bearing upon the doctrine of Evolution, of its physical, biological, psychical, philosophical, or ethical aspects; (3) Information bearing upon the scientific study of Ethics; (4) Information concerning practical methods in applied Ethics—involving the questions of practical beneficence, public and private charities, the moral training of the young, the elevation of the ignorant and degraded, reforms in penal institutions, hospitals, etc., the relations of capital and labor, the legal status and education of women, social and governmental reforms, etc., etc.; (5) Information bearing upon the scientific study of Sociology, including the science and philosophy of Economics; (6) Information bearing upon the scientific study of Comparative Religion; (7) Information as to the best methods of spreading and inculcating scientific and evolutionary doctrines as affecting ethical, religious, and sociological problems, and especially as affecting the practical daily life of women.

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The Open Court.

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LEADING PRINCIPLES IN ETHICS.

BY F. M. HOLLAND.

THE declaration of the editor of *The Open Court*, in number 164, that "The leading principle of ethics must always be the expression of a conception of the world," is so true and important, that I wish to indicate what sort of a conception is needed for this great purpose. And I am particularly glad to take up the subject in a paper whose editor holds with me, that the true test, which is to enable us to tell what is right or wrong, must be sought in the idea of usefulness, rather than in that of pleasure.

It has seemed to me for many years that Utilitarians, while doing much to place moral laws upon a firm scientific basis, above all vagaries of individual caprice and vicissitudes of sectarian dogma, have attributed far too much ethical value to man's desire for pleasure and happiness. The tramp would say, "I am much more happy than if I were hard at work; and I make no one less happy, for people like to be generous." The lazy and licentious savages on the Sandwich Islands seemed perfectly happy. Who of us would follow all the ways to make ourselves happier, which our neighbors would recommend? The cannibal's happiness is not like the missionary's; neither is the book-worm's like the prize-fighter's; nor the school-boy's like his grand mother's; nor the art critic's like the trapper's; nor the rake's like the philanthropist's. Human ideas of happiness differ so widely, that it is as hard to bring them together into one theory as to make a rope out of sand.

* * *

The Utilitarians are right, however, in looking for the leading moral principle in the relations of man to man. Whatever duties the individual has towards himself and towards the lower animals, are included in those moral laws which originate in his relations to other human beings. This is proved by such facts as that, "moral" and "ethical" are derived from the Greek and Latin words for "customary." The same is the case with the word translated "just" and "righteous" in the New Testament; "justice" comes from the Sanskrit verb "yu" to "bind," and "right" from the Aryan verb "rag," or "rak," to "make straight"; "virtuous" originally meant "manly,"

"honest," "honorable," and "wicked" "like a witch". Morality got not only its name, but its power from the fact that men have insisted on its observance from the beginning, as the necessary condition of social existence.

Men and women cannot exist except in society; and society cannot exist without some observance of moral laws. Any community would go to pieces, if the members did not respect each others' rights, relieve each others' necessities, and abstain from provoking each others' passions. Thus justice, benevolence, and self-control are conditions of social existence; and thus they become primary virtues, which all men and women desire to have practiced towards them, and which they know they ought to practice themselves. As Leslie Stephens says, (*Science of Ethics*, chapter viii, sec. 39,) "The moral law being, in brief, conformity to the conditions of social welfare, conscience is the name of the intrinsic motives to such conformity." I might add that both the strength and the disinterestedness of conscience may be readily accounted for, when we consider how long these conditions of social existence have been observed, and how earnestly their observance has been insisted upon by priests, heads of families, and other rulers.

* * *

What I wish particularly to point out, however, is that the idea of social existence, while having the advantage of being more definite than that of happiness, labors with it under the disadvantage of insufficiency. It is correct as far as it goes; but it does not go far enough to furnish all the highest moral ideas. The suppression of tramps and drunkards has not been found absolutely necessary for the preservation of social existence, even in the United States; and the natives of the Sandwich Islands might have kept up their filthy habits for thousands of years, without dying out. It is easier to point out this difficulty than to remove it; but I hope I shall be able at least to suggest a method of solution.

These natives, and other savages, are actually dying out; and the reason is that they cannot stand competition with races which are more faithful to what I would call conditions of social progress. I mean, in the first place, such advanced forms of justice, benev-

olence, and self-control as go beyond the mere requirements of social existence, and improve perpetually under the stimulus of competition. Thus, civilized nations recognize sobriety and veracity as necessary parts of self-control and justice; and benevolence has but recently been so far enlarged as to include humanity to lower animals. Not even agnostics doubt, as Paul did, whether men have duties towards oxen.

* * *

In the second place, I mean some moral ideas which are of later origin than the three primitive ones, but almost as old as human history. Here I would place chastity, patriotism, and physical culture, qualities which have done much to make one community more fit to survive than another, ever since competition began. The advantage of having little children cared for carefully is so great as to cause all nations that have risen above barbarism to insist on matrimonial fidelity; and the tendency of unchastity to weaken virtue and encourage vice has been fully recognized by Christianity. This religion did not pay so much respect as its predecessors to patriotism or physical culture, but modern thought insists that care for health and love of country are as necessary for individual perfection as for social progress.

* * *

The third and highest group of virtues is peculiarly modern, except in so far as two of its members, mental culture and love of personal liberty, were exalted in pagan Athens to a place which they lost after the establishment of Christianity. All that can be said of their value, in promoting chastity, patriotism, physical culture, self control, justice, and benevolence, is equally true of another great virtue, whose importance has been sadly ignored by teachers of religion and morality. Study of the tendency of indolence and extravagance to produce crime, and of the aid given by industry, economy, foresight, and enterprise to the development of qualities universally acknowledged to be highly virtuous, justifies my giving thriftiness a place among our most sacred duties. All other virtues have become easier and commoner, as life has been made more comfortable than ever before, especially for the poor. These latter now enjoy comforts and luxuries which were, until recently, beyond their reach; and this gain is due, partly to other men's increasing thriftiness, and partly to the help given them by practical philanthropists. Philanthropy differs from benevolence in requiring the assistance of mental culture. Love of liberty, thrift, mental culture, and philanthropy characterize our most advanced civilization, and guarantee future progress. And by progress I mean movement from the primitive condition of mankind toward our present civilization and thence onward in the same direction.

THE LOST MANUSCRIPT.

THE ORIGIN AND IMPORT OF THE NOVEL.*

GUSTAV FREYTAG has expressed the central idea of his novel *The Lost Manuscript* in the motto which he has written for the American edition:

"A noble human life does not end on earth with death. It continues in the minds and the deeds of friends, as well as in the thoughts and the activity of the nation."

This idea of the continuity and preservation of soul-life permeates the whole work. It meets us at every hand. We observe the professor in his study, ever eager to fathom the thoughts of the great thinkers of the past and imbuing his students with their lofty spirit. We sympathize with the heroine of this novel, the strong, pious Saxon maiden, in her religious and intellectual development; we behold her soul enlarging under the influence of unusual and trying situations; we watch her mentally growing amid the new ideas crowding in upon her. We enjoy the droll characterizations of the half-educated, of Mrs. Rollmaus and the servants, in whose minds the mysteries of soul-life appear in the shape of superstitious notions. And we see, again, the consequences of wrong-doing, of errors, and of mistakes continuing like a heavy curse, depressing the mind and hindering its freedom. And this last provokes a wholesome reaction and is finally conquered by unshirking courage in honest spiritual combat.

Illustrations of psychical laws showing the connections and continuity of the threads in the warp and woof of human soul-life, are found indeed in all the works of Gustav Freytag. The great novelist anticipated the results that have of late been established by the experiments of modern psychology. He says in his *Autobiographical Reminiscences*:

"What a man's own life accomplishes in the formation of his character, and the extent to which it fully develops his native capacities, we observe and estimate even in the best cases only with imperfect knowledge. But still more difficult is it to determine and comprehend what the living have acquired in the way of advancement and hindrance from their parents and ancestors; for the threads are not always visible that bind the existence of the present to the souls of generations past; and even where they are discernible, their power and influence are scarcely to be calculated. Only we notice that the force with which they operate is not equally strong in every life, and that sometimes it is too powerful and terrible.

"It is well that from us men usually remains concealed, what is inheritance from the remote past, and what the independent acquisition of our own existence; since our life would become full of anxiety and misery, if we, as continuations of the men of the past, had perpetually to reckon with the blessings and curses which former times leave hanging over the problems of our own existence. But it is indeed a joyous labor, at times, by a retrospective glance into the past, to bring into fullest consciousness the fact that many of our successes and achievements have only been made possible through the possessions that have come to us from the lives

* This article appeared as the preface to the new edition of *The Lost Manuscript*, published this week by the Open Court Publishing Co., in two large volumes.

of our parents, and through that also which the previous ancestral life of our family has accomplished and produced for us."

Is not this a revival of the old idea of the transmigration of souls? To be sure, the soul is not a material thing made of an invisible and airy substance, fluttering about after death and entering into another body. There are no material migrations of soul taking place, however tenuous the substance of the soul might be imagined to be. The memories of the present, our recollection of our past existence, depend on the fact that the living matter which is constantly replacing itself in us by other living matter, like the water in a wave rolling on the surface of the sea, always assumes the same form. It is the form that is constantly reproducing. In this sense, man (that is his soul) is the *product* of education. The soul of the future man stands in the same relation to our soul as the future edition of a book, revised and enlarged, stands to its present edition.* One man impresses his modes of thought, his habits, his methods of action, his ideals upon his fellow men, and thus implants his very soul into their lives. In this sense a transmigration of souls is taking place constantly, and he who opens his eyes will see it. No one has given plainer examples of this truth in the pleasant shape of novelistic narration, than Gustav Freytag.

The Lost Manuscript is in more than one respect a representative work, incorporating the spirit of the times. It is interesting from its descriptions of University circles, of country life, and of the vanity fair at the smaller princely courts of Germany. Yet these interesting descriptions gain in value, because we are taught by the author to comprehend the secret laws that rule the growth of, and determine the hidden interconnections between, the souls of men.

The plot of *The Lost Manuscript*, Gustav Freytag briefly characterizes as follows:

"In the upright soul of a German scholar, through the wish to discover something of great worth for knowledge, are cast juggling shadows, which, like as moonlight distorts the forms in the landscape, disturb the order of his life, and are at last overcome only through painful experiences."

Concerning the invention of the plot as well as of the characters of *The Lost Manuscript*, the following account from Gustav Freytag's *Reminiscences* will be of interest:

"In this story I depicted circles of life that were familiar to me since student days: the agricultural life of the country and the University life of the city. The reader will, I trust, discover in the characterizations of the work, that I have drawn cheerfully and unrestrainedly from this life at large. In the figures of the academical world he would seek in vain for special models, since Mr. and Mrs. Struvelius, Raschke, and others are types to whom in every German University single personalities will correspond. In the character of Professor Werner my friend Haupt has been recog-

nized. But one can find in it only so much of the manner and method of Haupt, as a poet dares to take up of the being of a real man without interfering with the freedom of artistic creation, and without offending him through lack of delicacy. Haupt himself perceived with pleasure a certain remote resemblance, and of this connection with the romance he gave expression in his own way; having on several occasions, when sending me the prospectus of his Berlin lectures on the Latin historiographer Ammianus, good-humoredly signed himself "Magister Knips," which latter personage plays a sorrowful part in the story, and is only prevented from hanging himself by the thought of his professional researches in the Latin author mentioned.

"Some years before the appearance of my 'Debit and Credit' Haupt had unexpectedly requested me to write a novel. This accorded at that time with secret designs of mine, and I promised him. To *The Lost Manuscript* he contributed, however, in quite another manner. For as we were once sitting alone with one another at Leipzig, before he was called to Berlin, he disclosed to me in the greatest confidence, that somewhere in a small Westphalian town in the loft of an old house, lay the remains of a convent library. It was very possible that among them there was hidden a manuscript of the lost Decades of Livy. The master of this treasure, however, was, as Haupt had learned, a surly and quite inaccessible gentleman. Thereupon I put forward the proposition to travel together to the mysterious house, move the old fellow's heart, hood-wink him, and, in case of extreme necessity, drink him under the table, to secure the precious treasure. As Haupt had some confidence in my powers of seduction when joined with a good glass, he declared himself agreeable therewith, and we reveled in and developed to the fullest extent the pleasure we had in prospect of enlarging the tomes of the Roman historian for a grateful posterity. Nothing came of the affair; but the remembrance of the intended trip greatly helped me in developing the action of the novel.

"In Leipzig I had lived a short time on the street nearest the Rosenthal with a hatmaker, who manufactured straw hats. Near to him, as it chanced, was another well-known firm, which administered to the same need of the male sex by felt-hats. This accident suggested the invention of the families Hummel and Hahn, although here also neither the characters nor the hostilities of the two families are copied from real life. Only the incident is made use of, that my landlord took particular pleasure in decorating his garden with ever new inventions: the White Muse, the Chinese lanterns, and the summer-house by the road, I have taken from his little garden. Moreover, two characters of his household,—the very ones which, by reason of their mythical character, have given offence, are exact copies of reality; namely, the dogs Fichtelhahn and Spitehahn. These my landlord had bought at an auction somewhere to act as warders of his property; they excited through their curish behavior the indignation of the whole street, until they were poisoned by an exasperated neighbor. Fichtelhahn died, Spitehahn survived and, after that time, was quite as bristly and misanthropical as he is portrayed in the novel, so that finally in consequence of the perpetration of numberless misdeeds his owner was obliged to banish him forever to rural life."

The novel, as is the case with every work of prominence and influence, did not escape criticism, even among the friends of the author. In his Autobiographical *Reminiscences*, Gustav Freytag refers to the fact. He says:

"The *Lost Manuscript* met with disapproval from many intimate critics of mine. The sombre coloring of the last volume gave offence. It was much objected that the religious struggles and the spiritual development of the heroine Else were not placed in the foreground, and again that Felix Werner was not more severely

* Compare the library scene in the chapter "A Day of Visits," Vol. I, p. 265, of the novel.

punished for the neglect of his duty towards his wife. But the insanity of the Sovereign was especially objectionable, and it was claimed that in our time such a figure was no longer possible. My friends were wrong in this criticism. The Sovereign and his son the Hereditary Prince were also taken as types. The former represents the perverted development of an earlier generation which had sprung up from the ruin of Napoleonic times; the latter the restriction and narrowness of life in the petty principalities that then made up the German nation."

The American public will perhaps feel the strength of the criticism to which Gustav Freytag in the passage quoted refers, more strongly than the European friends of the Author. We at least have felt it, and believe that almost all the citizens of the New World will feel it. Nevertheless, considering all in all, we confess that Gustav Freytag was fully justified in preserving these traces of the national soul-life of Germany. For they form an important link in the development of German thought, and have cast dark shadows as well as rays of sunlight over the aspirations of scientific progress; now disturbing it by the vanity and egotism of these petty sovereigns, now promoting it by an enthusiastic protection of the ideal treasures of the nation.

The Lost Manuscript teaches us an object-lesson respecting the unity of human soul-life. Under the masterly treatment of Gustav Freytag's ingenious pen, we become aware of the invisible threads that interconnect our thoughts and the actions prompted by our thoughts. We observe the after-effects of our ideas and our deeds. Ideas live and develop not alone in single individuals, but from generation to generation. They escape death and partake of that life which knows no death: they are immortal.

Gustav Freytag, it is true, did not write his novel with the intention of teaching psychology or preaching ethics. But the impartial description of life does teach ethics, and every poet is a psychologist in the sense that he portrays human souls. In a letter to the publisher, Gustav Freytag says:

"... The essential thing with the poet was not the teachings that may be drawn from the book, but the joyful creating of characters and events which become possible and intelligible through the persons depicted. The details he worked into artistic unity under the impulsion of a poetical idea.

"But I may now also express to you how great my pleasure is at the agreement that exists between the ethical contents of the story (*The Lost Manuscript*) and the world-conception (*Weltanschauung*) which you labor to disseminate. ..." (Translated from the German.)

The laws that govern the warp and woof of soul-life in its evolution hold good everywhere, also among us. We also have inherited curses and blessings from the past; our present is surrounded with dangers, and our future is full of bright hopes, the fulfilment of which mainly depends upon our own efforts in realizing our ideals.

CURRENT TOPICS.

ANOTHER venerable monopoly is in danger, the right of lawyers to the exclusive possession and enjoyment of judicial honors and emoluments. At the recent election in Kansas, a farmer, instead of a lawyer, was elected judge of the Twenty-fourth District. It is claimed for him, that although he has never studied law, attended lectures, been admitted to the bar, or committed any foolishness of that kind, he is well qualified for the bench, because he has a "judicial mind," having served in the capacity of judge at several horse races, church raffles, county fairs, and similar tribunals. It was also said—and the criticism will apply to some other States—that the judges in Kansas, had much law and little judgement, and that the law they had was bad. It was, therefore, thought best to elect a judge, who, if he knew no law at all, would certainly be innocent of bad law; one who, by reason of his "judicial mind" would be more likely to decide sensibly and justly, than another whose mind had been twisted out of moral symmetry by the "sharp, quick quillets of the law." Had the farmers of Kansas held bravely to their course, the result would probably have justified their action, but in a moment of doubt and weakness, they inconsistently took up a collection and sent their judge to Ann Arbor, for a six week's course of study in jurisprudence, at the end of which time he will know as much law, and as bad law, as the other judges know. Should their judge get muddled in judgment, the farmers of Kansas may charge his failure to the law school at Ann Arbor.

* * *

Is it necessary for a judge to be a lawyer? There are two sides to this question, and each gives good reason against the other. Where the *forms* of action are the essence of a law suit, the judge might be a lawyer, but where substantial right is "of the essence," it is better that he knew nothing about the forms of pleading, or the fictions of procedure. Wiser will he be if ignorant of the rule that makes a suitor state his cause of action in the form of manifold lies, or have his pleadings "quashed," and he himself be driven from the temple, where Justice cannot interfere, because being absurdly blindfolded, she vainly tries to weigh the merits of a cause in scales invisible to her. Hence courts of equity arose where Justice tried the case without the bandage on her eyes. For centuries the judges of the highest court in England were not lawyers, and they saved the law by breaking it when Justice ordered them. Not until Sir Robert Parryne was appointed Lord High Chancellor of England, did a lawyer hold that office, or preside in Chancery. King Solomon was not a lawyer, and yet he made some reputation as a judge. His brother Absalom was not a lawyer, although he had some aspirations for the bench, and sought the office by the methods practised in Chicago at this day. He buttonholed the delegates, and proclaimed his "platform" in these words:

"Oh, that I were made judge in the land, that every man which hath any suit or cause might come unto me, and I would do him justice."

Had he obtained the office for which he was a candidate, he might not have gone into the rebel army, and had he kept his promise to "do justice" he might have made a very acceptable judge.

* * *

A FEW days ago some well-meaning Christian ministers invited the Jews of Chicago to a conference, wherein they might all take counsel together in a spirit of brotherly love. The invitation was accepted, and the Jews displayed so much dignity, moderation, and good temper that many outside Christians thought the conference ill-advised and useless. The irritation of the churches was displayed in censure of the Christians present at the conference, for not asserting Christ with greater spirit than they did. A

Christian minister opened the conference with prayer; and regarding the Jews in attendance as invited guests, purposely omitted Christ in consideration of their feelings. This gave great offense, and the delinquent minister has been assailed with bitter censure by his brethren. Some have compared him to Peter who denied his master, and others have discovered a close parallel between him and Judas Iscariot. Meantime, the Jews, contented with the honors they have won, are not quarrelling either with the Christians or with one another. Some of the clerical critics appear to think that the Jews, having been beguiled into the conference, ought to have been prayed at by the Christians and compelled to acknowledge Christ, but the praying minister was too magnanimous for that; he thought that both Jews and Christians could unite in a prayer to the glory of God, while a prayer to the glory of Christ would have stultified the conference by excluding the Jewish members from a share in the supplication. The kindly subject of the conference has now become an angry controversy, blazoned in the papers as "Christian *versus* Jew," as if it were a lawsuit or a battle. Of this unfortunate result the Jews at least are innocent, and so is the Christian minister who prayed.

* * *

It is nearly fifty years since the "Fashionable Intelligence" portion of the London *Morning Post* was laughed out of existence by the scornful ridicule of *Punch*. Apparently that intelligence was furnished by somebody of rank and quality, but the doings of the aristocracy were described with so much personal particularity, and such grovelling flunkeyism that *Punch* declared the author of it was Jenkins the footman, and that the "intelligence" was nothing but the toady gossip of the servants' hall. Driven out of England by the railleury of *Punch*, Jenkins fled to America, and infected the whole confraternity of American reporters with his abject servility. Judging by the newspapers, a foreigner from one of the old monarchies, would be justified in believing that the American people were a lot of low-caste Hindoos, ever watching for a chance to make a salaam to the rich, the fashionable, and the great. It must be said, however, for the American Jenkins that he can bow lower, and grovel deeper than the English Jenkins ever did. I have lately read in the *Morning Post* for 1843 the "Fashionable Intelligence" which so excited the contempt and scorn of *Punch*, and it will not compare in baseness and man-worship with the fashionable intelligence reported every day in the American press.

* * *

AT THE opening of Congress Jenkins finds his golden opportunity. Then, mataphorically clad in gorgeous livery, with a blooming bouquet in his button hole, he overflows with gush. No Englishman ever loved a lord as Jenkins loves a senator. I have before me at this moment, a description by Jenkins of the recent opening of Congress. He begins by telling us with girlish ecstasy how the desks were "crowned" with flowers. This frivolous performance, undignified and silly, is described with more solemnity than the gravest matter of state. A grateful people read with reverential awe that "a big floral rooster with a bee-bive pedestal covered the desk of Senator Voorhees;" and what is more important still, that "Vice President Morton had on his desk the rarest of roses; and so had Senator Aldrich." In the idiom of Jenkins whatever appertains to a senator must be spoken of in the superlative degree, and thus it happened, that Morton and Aldrich, each had the "rarest of roses." With becoming gratitude we learn that "Senator Vest wore a new suit of clothes;" that Senator Harris had "one of his hands encased in a lavender kid;" and that "the silvery hair of Senator Ingalls was a little rumpled;" which is not to be wondered at, when we consider the rudeness of Kansas farmers at the polls. Jenkins

runs into danger when he proclaims that "Senator Carey's bald head is known to everybody in the Senate." Let him remember the fate of the children who mocked and scoffed at the bald head of the prophet. No Parsee on the banks of the Ganges ever worshipped the beaming sun more devoutly than Jenkins worshipped the Vice President when he mounted the steps of the throne. "When his gavel fell," says Jenkins, "he beamed on the Senate." It is worth going a mile to see Morton "beaming" on anything, especially the Senate. The recognition of any being as superior to a senator, was disagreeable to Jenkins, and the introduction of prayer appeared open to criticism, because it rather diminished the importance of the Senate; so he complains that "Chaplain Butler's prayer was a trifle longer than usual," although he kindly excuses the fault, because "it made up in fervency what it lacked in brevity." The *Court Circular*, which records the doings of English royalty, and which is edited by a tinselled and veneered Lord Chamberlain, does not condescend to such courtly adulation and abject flattery as the American papers do. There is nothing so fawning and obsequious to be found in Russia, in Turkey, or in Spain.

* * *

Fortunately for an anxious people, Jenkins found a spare moment for a glance at what he calls the "Lower House," but he does not mention anything occurring there of grave importance to the country, excepting this, "Rowell was in a reflective mood and soon settled down to his inveterate habit of carefully tearing up all the paper within reach and scattering it over the floor." Considering that the tearing up of paper draws heavily on the "reflective" powers of some people, the honorable member will receive his country's thanks for the exertion, and his constituents will be proud of a representative whose fame in statesmanship has been achieved by "tearing up all the paper within his reach and scattering it over the floor." Jenkins can write in vitriol as well as honey if need be, as for example thus: "The Democrats made noisy demonstrations of rejoicing when Breckenridge trotted down the aisle to be sworn in a second time to the seat he won by the murder of Judge Clayton."

M. M. TRUMBULL.

A REVIEW OF "WHEELBARROW."

In the *Weekly Chronicle*, published at Newcastle, England, "Wheelbarrow" is reviewed by George Julian Harney, one of the two surviving leaders of the great Chartist movement which agitated England fifty years ago. The review is interesting as a reminiscence of that historic agitation, as well as for its praise of "Wheelbarrow." Mr. Harney's article is entitled "The Career of an Old Chartist," and we present a few extracts from it.

"Looking back over the records, or rather, reflecting on the remembered men and events, of fifty—sixty years, it is matter for melancholy reflection how few of the friends and associates of one's younger days survive. Still more melancholy is the reflection that the great majority of the departed experienced, ere their rest came, the poverty, the want, the neglect, the disappointment of their hopes, the failure of their aspirations, which must have embittered, which undoubtedly did embitter, their declining years. Some, happily for themselves, died whilst yet in their youthful manhood. Others lived longer, only to prolong a sad experience: Feargus O'Connor dying in a private lunatic asylum; others, who shall be nameless, subsisting on the bitter bread of occasional benevolence. Many died far away from their

native land. Some disappeared, it is not positively known when or where—for example, McDouall and Bairstow, both eloquent tribunes, who many a time and oft found their words of fire responded to by the most frantic applause. They disappeared—as the ill-fated *President* went down—whelmed beneath the dark waters of death and oblivion; no one can tell where or when. Then we saw Ernest Jones, at the height of his popularity, about to cross the threshold of the Senate which his presence would have adorned, suddenly snatched away by grim Death; his own patriotic ambition and the dazzling hopes of his friends quenched in an hour! Such is life, with its bitter belongings and despairing disappointments.

"But the 'blackness of darkness' is not altogether unrelieved. A few, a very few, experienced more genial fortune. I have no authority to name two of 'the leaders' who still survive—one who, by his own industry and talents, has been enabled to provide a modest sufficiency to pass the evening of his days amidst 'Surrey's pleasant hills,' far from his birth place washed by the North Sea; the other, cared for by grateful and generous friends, finds repose in the shadow of one of England's most superb cathedrals—a location not without its consolations, for though our old friend in his strong manhood waged Miltonic war against prelacy and priestcraft, no man ever had a keener or finer appreciation of those monuments of our old England of which our magnificent cathedrals are the chief exponents, glory, and pride.

"I have been set 'a-thynkyng' on this theme by the receipt of a volume from Chicago, in which is told, too briefly, the career of an 'Old Chartist,' whose name was not known to fame when a participant in our old movement, but whose subsequent career has been such that every old Chartist still living may feel proud of their once humble, unknown associate.

"The book before me bears the sufficiently curious title:—'*Wheelbarrow: Articles and Discussions on the Labor Question.*' It is published at the price of a dollar, by The Open Court Publishing Company, Chicago. However able the articles and valuable the discussions, it will be most interesting to the readers of the *Weekly Chronicle* to give some account of a truly remarkable man: not remarkable, like Martin Chuzzlewit's American heroes, for tobacco-chewing and bowie-knife performances, but for energetic labor, both bodily and mental, and successful battling with and conquest of adverse circumstances—which circumstances would have condemned ordinary men to spiritless, hopeless servitude, but which, in the case of 'Wheelbarrow,' only acted upon him as stimulants to raise himself out of poverty's Slough of Despond, and to set a bright example to his fellows of what may be achieved by men with hearts to dare and hands to execute the behests of thinking brains.

* * *

"The parents of our author were both religious people, though belonging to opposite and contradictory sects. Like Burns, he had the good fortune of good parentage—the father honest and brave, the mother patient and divine. But the father—engaged in some mercantile business—was unfortunate; and when our author was but three years old he witnessed his mother's anguish consequent on her husband's arrest for debt. He remembers going with his mother to see his father in the Marshalsea—embalmed in Dickens's 'Little Dorrit'—a tiresome and somewhat silly story, I think, but which must have deeply thrilled 'Wheelbarrow' when he read it. The father, who would never have been put into prison but for the harshness of one creditor, was soon out again; and 'Wheelbarrow's' parents resolutely worked and dedicated themselves to suffering, to pay everybody, and succeeded.

* * *

"But the blight of poverty was upon the family, and the boy's schooling only amounted to reading, writing, and cipher-

ing—as far as the first four rules of arithmetic. At thirteen, he began to work thirteen hours a day, for five shillings a week. He soon became a Chartist. 'The years of my youth,' he says, 'were the years of the Chartist movement in England, and I flung myself headlong into it. Its high purpose and its delicious enthusiasm, attracted me.' He made speeches, and 'wrote red poetry for the *Northern Star*.' I should like to look up that 'red poetry.' Our author significantly adds:—'These things illustrate the passions, thoughts, and manners of the time; and their lesson applies to the social condition prevailing in the United States at the present day. There is a good deal of Chartism here!'

"In the forties, America was, much more than it is now, the 'Land of Promise. . . .'

* * *

"The career of 'Wheelbarrow' was carried in the first of these communications down to the time when he set sail for America. And now follows an account of the voyage and the Dantean horrors of an emigrant ship of that time. Coleridge's 'Ancient Mariner' is hauntingly weird, and Turner's 'Slave Ship' palpably horrible; but the incidents connected with 'Wheelbarrow's' voyage are no figments of the imagination, and his plain, unvarnished story strikes us with a force and effect beyond the poet or the painter's art. He affirms and proves that the loss of life on that emigrant ship 'was greater in proportion to the numbers present than the loss at Waterloo, Gravelotte, or the battles around Atlanta.' For fifty days fever and famine held riot on board that ship. Sixty-two passengers died and were thrown into the sea. It was estimated that as many more, or a larger number, died of the fever after landing. The ship was bound to Lower Canada. Quebec was already fever-stricken from previous arrivals, and would not allow the new arrivals to disembark. More fortunate at Montreal, they were allowed to land. 'Wheelbarrow' had only just touched the shore when he was accosted by a man with the question, 'Do you want a job of work?'

"Here was a surprise! A complete reversal of Burn's 'Man was made to Mourn.' The work was railroad making at Longueuil, on the opposite side of the St. Lawrence; the wages a dollar a day. The next morning our emigrant started to work. 'The tools and implements of my profession were a wheelbarrow, pick-axe, and shovel.' The reader now understands our author's *nom de plume*. The lawyer and the general, far from being ashamed of, glorifies the humble implement of labour by which he first earned his bread in the New World. Talk of 'heroes' and 'benefactors'! If we only knew the names of the men who thought out, designed and invented the wheelbarrow, the shovel, (or spade), the pick, the chisel, the gimlet, the screw, the saw, the plane, and the claw-hammer, there would be heroes and demigods for a new Valhalla, far surpassing in true glory the names of conquerors and kings.

"The severe Canadian winter put an end to the railway work for a season. Having saved a little money, 'Wheelbarrow' started on foot to seek his fortune in the States; but before he could get out of Canada, he was waylaid by a farmer, near Granby, who offered him seven dollars a month and board. But he found that farm labour is 'skilled labor,' and required special training, which he had not had. The farmer was a good-natured man, and said: 'You are not fit for farm work, but I can get you school-teaching.' This offer capsize the gravity of the emigrant, who thought himself even more incompetent for school-teaching than for farm labour. But the farmer was right. He got 'Wheelbarrow' a 'district school,' and the schoolmaster—at first very much 'abroad'—gave great satisfaction. 'Among the happiest portions of my life was the winter when I taught school and "boarded round" among the hospitable settlers in the backwoods of Canada.'

"In the spring and summer the Canadians are (or were) too busy for schooling, so our emigrant 'made tracks' in the direction

of Boston. He regarded himself as 'rolling in opulence,' for he had twenty dollars in his pocket, and his meals at the farm houses never cost more than fifteen cents. Near the town of Windsor he got another job at railroad building. After a time he reached Boston, where he found employment in a pork warehouse at a dollar a day. Things had changed with him when I met him in Boston some four years ago!

"One day in Boston, passing a building where the American flag was flying, he read a placard, inviting young men of spirit to enlist in the army for the conquest of Mexico! Here was a fine opening for adventure and excitement. Before nightfall he was entered as a full private in the 2nd U. S. Artillery.

* * *

"Having left 'the halls of Montezuma' behind him, 'Wheelbarrow' engaged in any kind of work that came along, or that he could get alongside of; devoting his evenings, as he had been advised, to the study of law.' He was working at brickmaking, a laborious and depressing employment, when he was admitted to the Bar. He went back to the brickyard for a time, and was subjected to a good deal of 'chaff,' being addressed as 'Counsellor' and my (or our) 'learned friend.' He kept his temper, taking the banter as the prophecy of better times to come.

"Here I may fittingly interpolate (so to speak) an apposite reflection. Many emigrants fail because unable to adapt themselves to the varied and varying circumstances of their new home. 'Wheelbarrow' was made of sterner stuff. The work he would have preferred not offering, he took to any work that did offer. And this is an American characteristic. At the close of the Secession War, hundreds of sergeants, lieutenants, and captains, and perhaps officers of higher grades, went back to their old occupations or embarked in new, seemingly as a matter of course. I remember seeking an ex-captain, who had also for some time held clerical employment in the American Embassy to the Court of St James's. I found him in a Chicago printing office, he having gone back to his old calling—a compositor. 'Wheelbarrow' did not need to take lessons from the Americans; he took with him his aptitude for varied work and his indomitable pluck; as did the founders of the American nation and the future Australian Empire. I do not much admire what is commonly termed America; I infinitely prefer Old England; but I am bound to say that all labour is honorable in the States, and needs no artificial addition such as the ridiculous title of 'Knights of Labour.'

"In a short time, he moved a hundred miles away, opened an office, and soon had clients. In another year he was elected District Attorney, but refused to qualify. In 1857 he was elected to the State House of Representatives, and took his seat in the ensuing January. His career as a lawyer and legislator was rudely interrupted by the outbreak of civil war. The attack on Fort Sumter was a challenge to all friends of liberty and the Union, and 'Wheelbarrow' enlisted for the war.

"He was elected captain of his company. He served in the Missouri campaign of 1861, and in the army of the Tennessee. In August, 1862, he was promoted to the grade of Lieut. Colonel, and afterwards Colonel of Cavalry. Before the close of the war he was promoted to the rank of Brigadier-General, and commanded a cavalry brigade. He does not speak of it in the sketch before me, but I believe he was twice wounded, happily without permanently serious results.

"On his return to his State he was immediately elected District Attorney. He had made his mark in the war, and when General Grant became President, Matthew was placed at "the receipt of custom," as Collector of Internal Revenue, which he held during the whole of General Grant's administration. This appointment, which had been unsolicited, was equally honorable to both parties.

"As a writer, terse yet fluent, logical and eloquent, our author generally carries conviction and always commands esteem. The book before me is mainly a reprint of contributions to *The Open Court*, a philosophical and popular periodical of high standing and growing influence, published weekly in Chicago. A variety of subjects are treated in this volume of 300 pages, including Henry George and the Single Tax proposal, Economic Conferences, Trades Unions, Convict Labor, Wages and Strikes, the Ethics of Trade, and other topics. Where the reader may differ from the author he cannot fail to respect the man and admire the writer. This book should be read by working men generally. Failing individual possession, free library and co-operative library readers should see that this volume is added to their respective collections. It is a book to make converts, or, failing that, to call forth combatants—in either case effecting good.

* * *

"And let me add for the encouragement of youthful readers about to engage in the Battle of Life:—

'Let us then be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labor and to wait.' "

DETERMINISM AND FATALISM.

"He either fears his fate too much,
Or his deserts are small;
Who fears to put it to the touch,
To win or lose it all."

To the Editor of *The Open Court*:—

In your able and thoughtful work, "The Ethical Problem," you make the very truthful statement that "the religion of science will be the most intolerant religion, for it will destroy all the views that are incompatible with it." Although I do not agree with the term "religion," I understand that you mean the truths of science will be extremely dogmatic. Truth is always dogmatic, and before its unanswerable asseverations we must humbly bow. Nothing short of an intolerant truth can wield the authority which is so much needed in the intellectual world. Since Bible and church authority is weakened by the steady advance of science, there must, of necessity, be an authoritative standard set up; not one of mere belief, but one of reason, governed by a right premise. You are doing a very good work in offering to the thinkers of the 19th Century the much needed privilege, an open court, and in promulgating the doctrine of monism as well as in you lies. But to my mind, and I say it kindly but candidly, the monist must take one more step before he can logically and dogmatically reach that point where the intolerant position of which you speak can be reached. That doctrine of the freedom of man must go; no logical argument can be brought forth to defend it. It is a child of paganism (necessary for a season, I allow) and has nothing to do with scientific monism. If all things come from one, then they do not come from two. If man is an independent factor in nature then he is not rooted in the one—the "all"; there are then two sources of action in the universe, man, and the balance of the universe. I agree with you that a man is a factor to his fate, good or what we call bad, but I insist that he is not the prime factor. What if civilized man is a rational being? It will not do to reason that he made himself so. He is simply an evolution of nature, differing from the wild men of Borneo only in that nature has paid more attention to his cultivation—has given him a better organism and better surroundings. It is true that knowledge is a very important factor in man's existence but the combination is a natural one; all is owing to natural advantages. If Mr. Edison was conditioned by nature like a Hottentot, he would not know anything about electricity. Mr. Edison is a factor to his fate as an electrician, and a Hottentot is a factor to his fate as a know-nothing.

but neither are prime factors—nature evolved and conditioned them both. A lion is a factor to its fate, when, in fury, it rushes upon the man who shoots it; and the lamb is a factor to its fate when it is killed by a lion; but what conditioned them both? Themselves?

The differences in men are simply natural combinations and conditions, else evolution cannot stay in the scientific field. By evolution the hands cannot produce counter action upon the works of the clock; the ear of corn cannot influence the growing of the blade, neither can men cause a reformation unless they have the stuff within them, and they cannot command that stuff. To say that the hands can react upon the works is to say that the lesser can overcome the greater. Man is intellectual enough to know (a developed man) how to make himself comfortable in this world, but his intellectuality is only a part of the necessary combination; without a natural opportunity—the prime factor—he is helpless. To maintain that man is free is to reason that there can be an effect without a natural cause. The fact that he is not free is in the fact that he is surrounded with mystery and conflicting theories, and the fact that evolution alone can do the work of elevating the human race is in the fact that men cannot agree upon a plan. "The Ethiopian cannot change his skin nor the leopard its spots." You quote, "We are not the children of the bond woman, but of the free," but you forget that the same Paul said, "The law of the spirit of life . . . has made me free from the law of sin and death."

The naturally moral man is free from the combination which before caused him to be immoral, but he is not free from the combination which is the cause of his morality; he is free from viciousness, but he is not free from morality; he is bound by the laws which are the causes of his morality, but it is a happy bondage, the same as when a man is bound to his wife by the law of love. Man cannot, morally, lift himself by the waistband of his pants, that is why the church and state has existed the one to drive him by threatenings and the other to force him by laws, backed by the bayonet. When the power of evolution develops him he will not need either; he must obey the laws of his organization. The ought is for religious teachers to proclaim; the must for the scientific. Science, therefore, cannot be reconciled with religion because religious teaching is not necessary to the man who is fitted by nature for science. To say to a good man, you ought to be good, is out of place; he must be good—"a good tree cannot bring forth evil fruit."

JOHN MADDOCK.

[Determinism is a truth which can not be dodged. *The Open Court* has endeavored to bring out the truth of determinism as strongly as possible. There is no freedom of will if it means an exception to the laws of nature. Freedom of will, as it has been defended editorially in our columns, is different, is a protest against the theory of fatalism, that whatever a man does, his fate will be the same. Determinism is not identical with fatalism, and compulsion is not the same as necessity. "When a man is bound to his wife by the law of love," Mr. Maddock says, "it is a happy bondage." We object to the word "bondage," not to the idea Mr. Maddock attempts to convey. It is no bondage, it is no servitude, no servitude, it is a union based on freedom. The union is the necessary result of free actions, not of a compulsion. The union is free, because the act of uniting results from a free will, from a will determined by its own nature and not by a foreign compulsion. Ed.]

CORRESPONDENCE.

THE GROWTH OF CONSCIENCE.

To the Editor of *The Open Court*:

Your paper on the "Growth of Conscience" in your Nov. 13th issue is a very clear statement, but I cannot quite reconcile it with my own experience. Notwithstanding my more than three score

years, my perceptions of right and duty seem to be no clearer than at my sixth or seventh year. At that age I often went away alone and sat musing and dreaming and longing intensely for purity as God is pure. To do wrong caused me an awful agony of mind. My conscience seemed as clear then as now, and I have no remembrance of having received religious teachings. Time has brought knowledge and breadth of moral vision, but has added no sensitiveness to conscience or intensity to the conception of moral purity. I have never formulated these volitions nor even made a close analysis of them. Perhaps the term "intuitionism" would cover them. In the light of your article on the "Growth of Conscience" I shall give them some close thought.

FRANK CANTELO.

[Conscience begins to grow before consciousness is fully developed. As soon as a child becomes conscious, it is already in possession of many motives higher than selfishness. Are not a mother's sacrifices and love the first impressions a baby receives? and many words of exhortation that fall into the half-conscious mind are like seeds that will grow stronger in time. The impulses of which consciousness consists are so strong, because they are so deeply rooted in the realm of sub-conscious soul-life.—Ed.]

BOOK NOTICES.

Mr. James H. West, Publisher, of 196 Summer Street, Boston, has sent us Nos. 12 to 15 (inclusive) of the *Sociological Series of the Modern Science Essayist*. They consist of four lectures delivered before the Brooklyn Ethical Association on "Evolution and Social Reform." The essays are: (1) "The Theological Method," by John W. Chadwick; (2) "The Socialistic Method," by William Potts; (3) "The Anarchistic Method," by Hugh O. Pentecost; (4) "The Scientific Method," by Daniel Greeleaf Thompson. These and the other thirteen lectures on Sociology delivered before the Brooklyn Ethical Association are to be published in a bound volume uniform with "Evolution."

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The Open Court.

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ENTER INTO NIRVANA

THE RELIGION OF A FORERUNNER OF CHRIST.

The religion of Buddha hinges upon the two ideas Sansara and Nirvana.

Sansara is the bustle of the world; it is full not only of vanity, but also of pain and misery; it consists of the many little trivialities that make up life. It is the pursuit of happiness; it is hunting for a shadow which the more eagerly it is pursued the quicker it flies.

The worldling lives in Sansara. He imagines he proceeds onward in a straight line, yet he moves in a narrow circle without being aware of it. He hastens from desire to pleasure, from pleasure to satiety and thence back to desire.

The worldling eagerly tastes the pleasure, and if he can he tastes it to the last, he intoxicates himself with it, only to find out that it was not what he had hoped for. Pleasure if tasted to the last becomes stale; it becomes staler than its symbol, the nectar of the grape that has been left in the glasses of toppers after a night's carousal.

What is the result of a life in Sansara? Man's feet will become sore and his heart will be full of disappointment. The Buddhist says: The circular path of the Sansara is strewn all over with fiery coals.

Desire burns like a flame and satiety fills the soul with disgust. Enjoyment, however, is the oscillation between both. Desire is want; it is parching thirst and pinching hunger. It is destitution, poverty, dearth. Satiety, on the other hand, is not at all a preferable state. It is tedious and wearisome monotony; it is life without a purpose. The fulfilment of want means an emptiness of aspirations, it produces the nausea of maudlin misery, and the absence of desire is felt as an actual torture. A longing rises in the heart for the thirst of an unsatisfied desire and thus the pendulum swings back to the place from whence it came.

And happiness! What is the happiness of a worldling? It is merely an imaginary line between both extremes. The pendulum that swings to a certain height on the one side will necessarily reach exactly the same height on the other. It does not come to rest in the middle. There is no escape from this law, and if a man of the world be prudent he will moderate the oscillations so as to diminish the misery.

Not going to the highest pitch of desire, he will not be obliged to drain the cup of myrrh to the lees.

Why does mankind continue to move in the circular course upon the fiery coals of Sansara? Because their eyes are covered with the veil of Maya. Individual existence, the Buddhists say, is a sham, an illusion, a dream woven of the subtle stuff of sensations. Man imagines that his sensory world is a reality. Buddhism teaches that the world of the senses is like a veil upon our eyes.

The veil of Maya does not exactly deceive man; on the contrary, the veil is the means by which man knows whatsoever he knows of truth. If the veil were not upon man's eyes, he would see nothing, he would be blinded, as was Moses in the presence of God. In itself the world of sensations is not a deceit, if it is not made so by being misunderstood.

The error, it is true, is natural. All errors originate according to natural laws; so did, for instance, the ideas of the flatness of the earth and of the apparent motions of the heavenly bodies. But if we err, the fault is not with the facts that lead astray, but with us. We deceive ourselves by our own error. The veil of Maya makes us feel our own being in contradistinction to that of all-existence; and this "we," the "I," the ego in its separateness is a self-deception. We live the dream of a pseudo-existence.

From the growth of the ego rise the self-seeking yearnings. Egoism begets egotism, and passions are the fruits of egotism. Passions produce pain and bring upon man the many evils of his earthly miseries.

Is there no escape from Sansara? Yes there is! The illusion that considers individual being as a reality can be destroyed. The veil of Maya can be lifted; which means, that its nature can be understood. In this way shall we recognize the error of egoism. There is no ego in the sense of a separate and individual existence, and with this truth it will dawn upon us that the regulation of action, as if there were an ego, is a fatal mistake. This mistake lies at the bottom of all the wretchedness of Sansara, and we can free ourselves only, so teaches Buddhism, by enlightenment, by understanding the truth, by abandoning the illusion. He who has attained enlightenment is a Buddha. Buddha means the enlightened one.

The highest stage of Buddhist perfection, the

stage where a man becomes a Buddha is called Nirvana. Nirvana means extinction. As a flame is extinguished and ceases to be, so the *ignis fatuus* of the ego can also be extinguished. The egoistic error being extinguished, we enter Nirvana.

Nirvana means peace; it means liberation from illusion, and thus it brings a freedom of desire.

Nirvana is not annihilation. It is the annihilation of error only; and in this respect it reveals to him who lives in Nirvana, the higher life of true reality. In Buddhistic literature Nirvana is sometimes characterized in its negative aspect as an extinction of sham-existence, and sometimes again in its positive aspect as the life of truth and immortality. It is often described in most positive terms as true happiness, as a state of perfect bliss, as living in the realm of eternity, where there is no pain, no misery, no death. This appears to be contradictory to its literal meaning, but it seems to me that it is not.

As soon as we recognize the error of individual existence, we lift ourselves above the narrowness of egoism. We can in this state of mind contemplate our own fate from a higher standpoint; we can easily and we do willingly give up our pursuit of happiness; we can live in this world as though we were not living. Our "we," our "I," our "ego," the separateness of our individuality has ceased to be, and the life of the universe lives in us. We have become stewards of cosmic existence. In this way our joys as well as our pains are transfigured and a divine peace will inherit our souls that are now free from desire.

Pain, together with the vanity of pleasure, will diminish in the degree of the enlightenment attained. This is a law that is demonstratable in such exact sciences as physiology and biology. Our scientists inform us that the use of the sensory nerves blunts feeling and favors intellection. The highest sensory nerve, in which the intellectual element is comparatively most perfect, is the optic nerve. The retina of the optic nerve, while perceiving the differences of infinitesimally small fractions in ether-waves, has become insensible to pleasurable as well as to painful feelings.

The idea of Nirvana, it must be said, is of a most dangerous character, if it is conceived as mere pessimism in its negative features alone. It will in that case lead to apathy, to destruction and death. Did perhaps Gautama Buddha himself conceive Nirvana in a spirit of negativism? Perhaps he did. At least it is certain that many of his disciples did; for the Buddhism of the East has produced most fatal effects of indifference and retrogression upon those races that embraced its faith.

If Nirvana is conceived in its negativeness, Buddhism will be a dualistic religion. In that case we have existence and non-existence, Sansara and Nirvana,

sham-reality and nothingness. If, however, Sansara is conceived as an illusion and Nirvana as the destruction of the illusion, we need not resort to the nihilistic world conception of a dual nothingness; we need not derive from the Buddhistic premises the negative ethics of destroying life together with the illusion of egoism.

One of the most important truths proclaimed by Buddha, was the doctrine that man can enter into Nirvana while he lives. When Gautama had found redemption from the evils of existence, he resolved to announce his gospel to the world. He went to Benares and on the way he met one of his old acquaintances who asked him:

"What is it that makes you so glad and yet so calm?"

Buddha answered:

"I have found the path of peace, and am now free from all desires."

Little interested in Gautama's bliss, his acquaintance further enquired where he was going; and we are told in the Buddhist legend:

The Enlightened one answered:

"I am now going to the city of Benares to establish the kingdom of righteousness, to give light to those enshrouded in darkness, and open the gate of immortality to men."

He gave up fasting, for he looked upon the oppression of the body as a vain effort of conquering the evils of existence. He abandoned asceticism as a means of salvation.

It seems strange that life can be gained only through annihilation of self; immortality is possible only through the death of the transient and the happiness of eternal peace will come with the crucifixion of the desire for happiness. It seems strange, but it is not. However, it is natural that the deeper a truth is, the more contradictory it will appear to those who are prisoners still in the bondage of error.

Buddha's doctrines were misunderstood, misinterpreted, and misused. Yet they have given strength in temptation, comfort in misery, peace in tribulation, solace in death to many millions of toiling, aspiring and suffering human hearts.

ROBERT KOCH'S DISCOVERY.*

BY DR. HUGH BERNHEIM.

With great expectations we have been waiting several months for a definite word from the lips of the reticent scientist, and with enthusiasm we now receive the wonderful tidings of his ingenious discovery. The result of his researches lies now open before the world—an invaluable gift presented to mankind by a man noble in character and great as a thinker, so that like Hippocrates of yore he deserves the honorary title of "Father of Medicine."

* Translated from the *Gegenwart* by KPC.

The immortal merit of Dr. Robert Koch consists in having opened a new path to the therapeutics, not only of contagious but of all internal diseases. And the method by which he succeeded was the same as that of his illustrious precursor, William Jenner, i. e., to use the products cast-out by the disease-begetting parasitic organisms as a prophylactic and therapeutic remedy. However, while Jenner owed his discovery to good fortune, while he devised vaccination in perfect ignorance of the real state of affairs; Dr. Koch, on the contrary, followed a definite plan; he went to work systematically, surveying the conditions with an unusual clearness of mind and scientific insight, until he had found the anticipated result of his labors.

The therapeutics of internal diseases had become fatally stagnant, and it was indeed necessary to make a decided step in advance. Our physicians were groping in the dark; and without knowledge concerning its aetiology, they were in search for chemical means to heal internal disease. It was not at all surprising that in this state of things quackery and the various so-called natural methods found more and more credit among the public. Our medical scientists have long since been expecting the time in which we should know more about the aetiology of the internal diseases; and this time so eagerly hoped for has come at last. A veil has been drawn from our eyes and with one prophetic glance can we now overlook the whole field and anticipate a still further progress by considering the weighty consequences of Professor Koch's discovery.

The greatest merit of Professor Koch is not that he has found a specific medicine against a disease heretofore considered incurable; not that he has found a reliable reagent and diagnostic against tuberculosis, often so insidious and hidden; Professor Koch's merit is greater; he has created the therapeutics of the future. For Professor Koch's method of curing tuberculosis is applicable to every contagious disease, as soon as we know the nature of the fatal germs, and the number of diseases now recognized to be contagious is increasing from day to day; it may now be supposed to form three fourths of all maladies.

Moreover, Professor Koch's method is prophylactic as well: it protects from contagion with certainty, and thus a revolution in all our therapeutic views and methods is near at hand, the full extent of which cannot as yet be measured. Prophylactic inoculations, it must be expected, will protect our children in the future against scarlet fever, diphtheria, measles, etc., in a similar way as vaccination against smallpox. If we are attacked by cholera or typhoid fever, we shall be cured, not with prescriptions of the old kind, but by a subcutaneous injection.

What then is this mysterious antidote? Only a

few select ones are familiar with its preparation and composition. The non-initiated must patiently wait until the master shall speak, and the day when he will do so, will come soon.

Koch's medicine is a transparent, brownish fluid (as Professor Koch says in his statement) with a weak odor of carbolic acid; it contains five per cent. of carbolic acid for the sole purpose of preservation.

The new medicine cannot be a solution of gold cyanide, as has been supposed, for Koch declared in his first lecture before the International Medical Congress in Berlin, that his new medicine was no drug that could be bought at the apothecary's or made by a chemist. He mentioned solutions of gold cyanide, and praised them as being strong drugs for destroying parasites, yet he expressly added that his antidote was different.

It is most probable that Dr. Koch's fluid consists entirely or partly of ptomaines. Ptomaines are the products and cast-off residues of the albumenoids which have been transformed, or so to say, digested, by the bacilli in their process of life, perhaps mixed with other secretions of these parasitic organisms, viz., the toxic albumenoids, the virulence of which, if introduced into the blood of a live animal, produces by its specific effects upon the nervous system, e. g., upon the thermal centre in the medulla oblongata, fever, coma, cramps, vertigo, and other symptoms of contagious diseases.

To conquer the enemy with weapons furnished by himself was the grand idea of Koch. And this idea we know is also the reason for the effectiveness of Jenner's method of vaccination; vaccine also contains cast off products, the taxalbumenoids of the smallpox-begetting germs. Yet it must be remembered that the smallpox germ is no bacteria, is no plant, but according to the latest discoveries of Pfeiffer a protozoön, a unicellular creature standing upon the lowest stage of animal life.

The infallible effectiveness of Koch's cure has been demonstrated for all tuberculous diseases of the peripheral body, viz., for tuberculosis of the skin (lupus), of the glands, of the joints and of the bones. We are not so certain about reaching favorable results, in cases where internal organs are attacked, viz., the lungs, the larynx, and the intestines. The time for exact observations has been too short, and the treatment of cases of far advanced consumption has as yet proved a failure. The glorious success in curing peripheral tuberculosis might easily disappoint many exaggerated hopes. According to Koch's own statement, his medicine, if introduced by subcutaneous injection, will not destroy the tubercular bacilli, but the pulmonary tissue attacked by the bacilli. Should the lungs be in such a state that the bacilli have under-

mined large tracts, filled whole caverns, and produced, through additional and external introduction of pus-cocci, an extended suppuration, Koch's method, most likely will be of no avail, and this, we are sorry to state, has indeed been verified in the Vienna Clinic by Dr. Emmerich Ullmann.

It is for this very reason that Koch so urgently requests the detection and treatment of pulmonary phthisis in its first stage. He points out the duty of every physician to search in the sputum for bacilli upon the slightest suspicion of tuberculosis, yet it must be remembered that the absence of bacilli is no proof that there is no tuberculosis. It may happen, and indeed it does happen, that people whose sputum has never shown the slightest trace of tuberculosis, will nevertheless die of consumption. This case usually occurs if the diseased spot lies in one of the interior branches of the lungs, so that the cavern filled with pus stands in no connection with any one of the larger bronchial branches of the trachea. In this way the seat of tuberculosis is entirely isolated and nothing of its secretion or products can be thrown out. The sputum that is thrown out comes from those parts which are not infected, and naturally cannot contain bacilli.

In conclusion we have to note the movement that has been caused by Koch's discovery among the surgeons. Some time ago it had been proposed to attack pulmonary tuberculosis with the knife, i. e., to remove the diseased tissue and disinfect its surroundings. There was one reason only that forbade their ingenious operation. It had been observed that relapses could not be prevented and this was sufficient to make a surgical cure of tuberculosis a hopeless undertaking. However, at present, as matters stand now, Dr. Bergmann declared in a meeting of surgeons held November 16th at Berlin, that surgical operations should in such cases be boldly tried, "for we are now in the position," he said, "no longer to fear any relapse. We have attained all that is desirable in the field of pulmonary surgery."

We have not as yet gathered any experiences concerning tuberculosis of the meninges and of the larynx. There is no doubt that we shall find many imperfections and defects in our newly acquired knowledge as well as method, and much work is still to be done. Yet that is no reason for suppressing the general gladness which we naturally feel at this grand discovery. Let us rejoice that we live in an era in which science boldly and victoriously advances, led by a hero of scientific research like Robert Koch.

INDUSTRIAL AND REFORM SCHOOLS.

They had a sublime subject for debate at the banquet of the Sunset Club on the 20th of November; and the speeches make an epic grander than the Iliad,

for their theme was the temporal salvation of little children, with "Industrial and Reform Schools" as the agents of redemption. The debate was a revelation that politically, ethically, and religiously, there is no such thing as that outcast from our affections which we call "another man's child." Every child has a personality of its own, equal in rights and value to that of the Governor or the President. It is not the property of its father or the State. These have no rights in the child, excepting such as grow out of their duties to it; and the welfare of the child is the supreme object of the rights and the duties too. The lesson of the evening was that every other man's child is our own child, having claims upon our hearts and pockets, our sympathy and care.

The first speaker was Mr. T. E. Daniels, a gentleman wearing the suggestive title of Superintendent of the Waifs' Mission; the "waifs," not goods and chattels, be it understood, but human beings, part of the "surplus population," the homeless children of the poor. The very word "waif" means a lost or abandoned thing; and that it can be properly applied to a child is of itself a reproach to this greatly overrated Nineteenth Century. Mr. Daniels found for the word a new definition which it would be well to put into the next edition of Webster's Dictionary, "the lowest of the three grades of boys, being the waif or stray, drifting about our streets night and day." Drifting? Whitherward? Let "Society" beat its drums and smother the answer.

Mr. Daniels appears to have a belief, which, let us hope, is erroneous, that evil, not good, is contagious; for in speaking of the "waifs," he said that they "should not be forced into the public schools," because "they would contaminate the better class." Waving any criticism of that sentiment, in our admiration for the enlightened benevolence that guides the Waifs' Mission in its work, we rejoice at the practical experiments described by Mr. Daniels, wherein he shows that in the case of boys at least, it is easier to prevent than to punish crime. "We do not do it," he says, "by the old method of imprisonment and threats. We treat them with kindness, just as we would our own boys, and forbear with them." By that simple formula Mr. Daniels solves the knotty problem which has baffled statesmanship for ages, "How shall we treat infant criminals?" Probably the Sunset Club never got so much good learning condensed into so short a sentence; and the temptation to repeat it is irresistible, "just as we would our own boys."

The Waifs' Mission has tested the Daniels formula and proved it a success. It has given us a demonstration that even lost and abandoned boys, "waifs," may be redeemed, and receive a new birth by the

sacrament of lunch; to quote the words of Mr. Daniels, "We first give them a lunch, and on top of that we try to put morality." The glory of the effort is that they succeed. It ruffles our self-conceit a little when we learn by the experiment of this unpretending institution that our penal statesmanship has all been wrong, and that in the application of our criminal code to girls and boys, we have treated fever with fire. In driving these "waifs" beyond the radius of our duties and responsibilities, we spurn the appeal of Christ, and accept the competing bid of the Devil as he travels the city crying "Suffer little children to come unto me." And we tell him to take the "waifs."

Although only a fraction of the waifs are under the care of the mission, nearly 2,000 are on its rolls, "embracing nearly every nationality," says Mr. Daniels, "except one, the Jews." They take care of their own, and the "waifs" get no recruits from them. If this is true, as we have no doubt it is, the rest of us ought to apply for seats in the Synagogue, if the Jews will accept us on probation, as they probably will not.

Although he showed the moral value of the Mission in a very modest way, Mr. Daniels was troubled somewhat at its money cost, and he had a slightly apologetic manner when he said, "If there is any way of estimating the value of a boy's soul, I think any one present will justify the whole expense of carrying on our mission work." Well, there is no way of estimating the value of a boy's soul, nor of his body either, for there may be lying hid somewhere behind his forehead a creative thought that in the fullness of its time may give this world an Archimedean lift. Who knows? Judging by the statement of Mr. Daniels, the money for the Mission is well expended whatever its amount may be.

The Rev. Dr. Hirsch spoke next, and he painted a word-picture, sad, sarcastic, and pathetic as any that Hogarth drew. He declared that our police courts were the primary schools, and our county jails the high schools, wherein our children and our youth are educated up to crime. He spoke without either doubt or fear, because he stood upon a firm foundation, built of real examples quarried out of Judge Altgeld's book. He held that boys are not responsible for their evil inclinations, because these are the sins of their fathers visited upon the children even unto the third and fourth generation. In this the orator was right, and men are beginning to understand it now. Lord Byron, when reproached by his mother for his lameness, flung back the taunt upon his parents, saying, "I was born so, mother"; and this very same answer he puts into the mouth of Manfred, the Hunchback. Dr. Hirsch contended that those hereditary vices which are beyond our surgery, were stimulated,

expanded, and intensified by unnatural conditions which we can control. He said, "two factors enter into every character; one the influence which comes from our ancestors, and the other that of our surroundings." We cannot change our ancestors, but we can reform bad customs and repeal bad laws.

Dr. Hirsch, like Mr. Daniels, finds a saving grace abounding in the sacrament of lunch, for the first article in his *Credo* as he gave it at the Sunset Club was this, "I believe in the gospel of the sandwich, and the baptism of the bath tub." The allusion here was to an enthusiastic evangelist, who, some five or six years ago, was very zealous in preaching the gospel to the poor. He was not a Doctor of Divinity, and probably knew little of genuine theology, because his practice was to begin worship by administering to each member of the congregation a cup of hot coffee and a sandwich, and "on top of that" he laid the gospel of the Lord. His temple was the "desert place" down there in the shade of the Custom House, and irreverent scoffers called it "The Church of the Holy Sandwich." Although this absurd communion was very unlike the genteel and fashionable Eucharist, it had a close resemblance to the feeding of that five thousand in the "desert place" of Palestine. After a year or two the money of the evangelist gave out and his peculiar mode of worship was discontinued for the time. Rivals in the ministry laughed and said that the Church of the Holy Sandwich was a failure, but it was not, for in the eternal government there is a law of compensation, and no good deed can fail. Religiously, if not theologically speaking, not a crumb of the sandwich, nor a drop of the coffee was lost; "And whosoever shall give to drink unto one of these little ones a cup of cold water only in the name of a disciple, verily I say unto you, he shall in no wise lose his reward." And this promise will apply to a cup of hot coffee, too.

In the scheme of remedies proposed by Dr. Hirsch, the most conspicuous was the Manual Training School. He also thought the "waifs" ought to be classified, and those merely vagrants by misfortune separated from those with inherent criminal desires; and this appeared to be the opinion of Mr. O. L. Dudley, general agent of the School of Agriculture and Manual Training at Glenwood, who spoke of the work done there, and a very good work it is. We are inclined to agree with Mr. Dudley when he says, "With a beautiful farm of 300 acres, new buildings on the cottage plan just completed, the homeless street boys of Chicago can be properly cared for, saved, before they have really become criminals, and there will be no need for your reform schools." It is not likely the "waifs" can get a better moral education anywhere than they get in a school of agri-

culture, for primitive ethics is the tilling of the soil. When all other agents fail a moral character may be developed by the education of the hand.

There was political economy of good quality in this, from Mr. Dudley: "Teach the boys trades; not only educate the head, but the hand as well; make them skilled workmen at some trade or calling, then you can send them out to fight life's battle honorably and successfully. The system we have adopted is to save the children. It is preventive and natural. It is humane, and humanity and economy have no conflict. Prevention is safe and economical. Reformation is uncertain, and punishment never restores self respect. It is better to save a child than to reform or punish it." This debate fell upon some of the members like a bright light, revealing unto them, not only the right of every boy to a trade, but also the moral policy and economic wisdom of seeing that he has it. And don't forget the girls.

Dr. Hirsch, referring to our wasteful squandering of "waifs," very eloquently said that all of us were partners in their sins, and that when any one of them did wrong each one of us might say in sorrow, *mea culpa*. This, perhaps, is true, but if our sin is heavy, an easy penance lies before us, and the cost of absolution is not great.

M. M. TRUMBULL.

CORRESPONDENCE.

A CRITICISM OF "FUNDAMENTAL PROBLEMS."

To the Editor of the Open Court:—

MY DEAR SIR:—I have neglected to acknowledge the receipt of your book *Fundamental Problems*.

I have pondered on these problems for more than sixty years, so I disliked to pass by the opportunity of having perhaps the last fling at a philosophy diametrically opposed to my own. I told you a few years ago that you could not get life out of inorganic matter; you told me that the idea of inorganic (dead) matter was *not tenable*. I did not conceive that you held the doctrine that all matter, *all nature is alive*. Hylozoism is a pre-socratic doctrine, and was held by the old Ionian Physiologists. Thales was a monist—held that *water* was the source of all things; other members of the school said that the source was either air, earth, or fire; Protagoras said, "Man was the measure of all things," and that as no two things are alike, so no two minds are alike; every man's measure of the universe must be different. Huxley said every man carries a universe under his hat, but he recently said that the sage was *soberly in the wrong*.

One of the Problems that you hold is that of Universality of Life and Mind. I cannot accept this because it is not proven; I cannot dogmatize, and say from a monistic conception of the universe, there is no doubt that the forms of organized life which now exist on our planet originated from the forms of "inorganic life." There was a time, you say, when the state of the earth made animal and plant life impossible. How organized life originated is not yet solved, but the solution is not beyond the reach of science. (Page 112). "Inorganic life" is a trick of language, and by playing such tricks (G. H. Lewes says) and by stretching terms it is easy to identify life with molecular change.

You say the world substance is as Spinoza held. *One*. He said it had two attributes, and many modifications. And that to search for a beginning of life is wrong, as it is to search for the origin of matter. I agree with you—the founder of the Huttonian theory of Geology said that, in the economy of the world he saw no evidence of a beginning, and no prospect of an end. "The world substance acts of itself." Many men have tried in vain to explain the origin of the world from dead matter; but you say, in consequence of the fact that Monism accepts the idea that "nature is alive," is "one great and living whole of which man is a part" (which contains in its form the quintessence of life), a time will come when men will be obliged to use the term psychical in a broader sense, and speak of a *psychology of atoms and molecules*.

To this doctrine that *all Nature is alive*, which Naegeli discussed at the meeting of German Naturalists at Munich in 1877, Virchow strongly objected. When it is proved that psychology equally belongs to the domain of animal and vegetable life as well as of inorganic matter; then, said Virchow, the universality of Life and Mind may be taught in the schools. There is no doubt that mental phenomena pertain to certain animals, but not to the totality of all organic beings. There is no reason to say that psychic attributes reside in other animals than man. There are certain gradations from mental to physical nature, and I do not declare it is impossible to bring psychical phenomena into immediate connection with physical ones. I object to setting down this possible connection as a "scientific doctrine." With regard to this connection nothing is really known. It is easy to say a cell consists of small particles called plastidules. Plastidules are composed of carbon, hydrogen, oxygen, and nitrogen; all these atoms are endowed with a special soul, the sum of the forces which the chemical atoms possess. Virchow says this may be so, it is very fine; but until the properties of the atoms are defined I cannot understand how a soul can result from their combination. Therefore he says the plastidule soul must not be introduced into the educational programme; and every educated man must not be asked to recognize as a scientific truth the plastidule soul as a basis for a conception of the universe. As an instance of the danger, Virchow says, in opposition to the doctrine of the development of organic life from inorganic matter, he once laid down the proposition that every cell had its origin in a pre-existing cell. The proposition was taken up by others and made valid beyond the limits of organic life. He had letters from men in Europe and America who based the whole of Astronomy and Geology on the cellular theory. Virchow could not pronounce all these men to be fools and simpletons. Some of their arguments showed that they were men of education who had studied much and who in their pursuit of a monistic conception of nature had reached the conclusion that the whole universe was built up and governed on the cell-principle. Virchow said of Naegeli's proposition, he had no objection to carbon atoms having souls; but in declaring attraction and repulsion to be psychic phenomena he was throwing Psyche out of the window, and Psyche is Psyche no longer. In the fourth volume of the *Problems of Life and Mind*, 1880, G. H. Lewes follows Virchow, and says there has recently sprung up a chorus of voices not always accordant, who proclaim that if the Law of Continuity is true and the doctrine of Evolution they force the conclusion that all Nature is alive and sentient.

He says the hypothesis rests on an arbitrary extension of terms, and an exclusive selection of conceptions. By rendering terms very elastic it is easy to reduce all diversity to identity. Life and Mind are present from the first; the more conspicuous manifestations are the results of evolution. All things are alike if points of unlikeness are disregarded. In recent speculations it is considered that the irritability in plants, is identically the same molecular disturbance as the sensibility of animals, and thence all molecular disturbance is evidence of sensibility. In confounding

the conception of Life with that of Existence, Lewes asks: "Why should not a lamp-post feel and think, since it exists, and is subject to molecular changes consequent on impression?" This question seems absurd, but when it is remembered that the adherents of the school of Naegeli hold that all material phenomena are composed of the motions of molecules and elementary atoms, so pleasure and pain, must have had their origin in the infinitesimal atoms, and must have been caused by the manner in which the atoms respond to each other in their attracting or repelling forces. Sensation, therefore, is a property of the albumen molecules, and if this is granted Naegeli says, it must be granted to the molecules of all other substances. If two molecules feel an attraction or repulsion for each other they either approach or move away, and if they possess a relation to sensation however distant, which Naegeli cannot doubt, since each one feels the presence, the mutual condition of the other, each inclines to move, and if it really begins to move, becomes alive as it were. Such molecules are the elements which cause pleasure and pain, and if the molecules feel something related to sensation, it must be pleasure if they respond to attraction and repulsion, i. e., follow their inclination or disinclination. Your arguments in favor of all Nature being alive have as little objective basis as those of Naegeli; I wonder that Lewes undertook their refutation.

We should never lose touch with the past, nor with the present, which I think you do in ignoring Weismann's theory of the Continuity of Germ-plasma. A fundamental problem in the doctrine of Matter, Life, and Mind, which has been overlooked, is now made clear; it bears strongly on the three principles enumerated above in regard to their eternity. In the multiplication of the one-celled organisms (such as the Amoeba) "nothing dies," the body splits into two, but where is the dead body? Here is neither birth nor death—reproduction without generation,—without parthenogenesis, or alternate generation. Weismann converted the conception of the idioplasma of Naegeli into two distinct elements in embryology, thus removing it outside of monism. Life depends on metabolism, on a constant change of material. That required for embryogenesis is called the continuity of germ-plasma, and the other element is called somato or body-plasma. What is immortal in the germ-plasma, is a definite form of activity, whatever that may mean.

JOHN CHAPPELLSMITH.

[Our venerable friend, Mr. Chappellsmith, is mistaken when he thinks that we lose sight of the truth (demonstrated by Weismann for unicellular organisms), that potential immortality consists in the preservation of a definite form of activity.—Ed.]

BOOK REVIEWS.

THE GOLDEN FLOWER, CHRYSANTHEMUM. Verses by Edith M. Thomas; Richard Henry Stoddard; Alice Ward Bailey; Celia Thaxter; Kate Upson Clark; Louis Carroll; Margaret Deland; Robert Browning; and Oliver Wendell Holmes. Collected, arranged, and embellished with original designs, by F. Schuyler Matthews. Illustrated with reproductions of studies from nature in water color, by James and Sidney Callowhill, Alois Luzner, and F. S. M. Lithographed and printed by L. Prang & Co., Publishers, Boston.

Chrysanthemum, the golden flower, is the rose of the wintry season; for it is not only the queen among the lovely daughters of Flora in the fall, but it rivals also her beautiful sister of the summer months by the uncounted variety of species in which we possess it.

"God's wondrous sweet thought of the rose
In a blushing chrysanthemum grows;
And under October's chill moon
Illumes another rose-beauty of June."

This idea is, as it were, the keynote of the book before us.

We are presented with a number of exquisite illustrations of the best known and most beautiful species of golden flower, most artistically executed and gathered in a volume appropriately bound and decorated. Every illustration is accompanied with a thoughtful poem. Kate Upson Clark says:

"A rose and the heart of a rose,
But a heart of yellow fire,
Like a crater that seethes and glows,
Tossing lava of delicate rose,—
Lava-quills rose-red, around,
(Till its beautiful waves are piled,—
Waves born of the crater wild,—
Like a pitiful, perfumed mound
Of love, pure undefiled,
On the grave of a dead desire.)

*
Thou meanest more than a rose,
Chrysanthemum, rare and round!"

Celia Thaxter closes one of her poems entitled Christmas Eve with these lines:

"Climb thou and cling, nor ever lose thy hold!
Ask of thy year a happiness divine,
Trust not the shows of Earth, its fame or gold,
But seek the highest good, it shall be thine!"

It would lead us too far, if we were to quote the thoughtful strains of Browning and other poets represented in this book. So we will close our review of this most beautiful Christmas gift with the last verse of the last poem, which is by Oliver Wendell Holmes, who addresses the golden flower with these words:

"Thy smile the scowl of winter braves
Last of the bright-robed flowery train,
Soft sighing o'er the garden graves,
'Farewell! farewell! We meet again?'
So my life's chill November bring
Hope's golden flower, the last of all,
Before we hear the angels sing
Where blossoms never fade and fall."

CIVIL GOVERNMENT IN THE UNITED STATES CONSIDERED WITH SOME REFERENCE TO ITS ORIGINS. By John Fiske. Boston and New York: Houghton, Mifflin, and Company. 1890.

We have here a popular account of civil government in his country, comprising that of the State as well as of the Federal Union, showing their origins. This may be termed political or constitutional government, as distinguished from social government, a full account of which in the Township, the County, and the City is given, tracing its beginnings in English institutions.

Professor Fiske assigns the proper position to the State, as the real basis of the Nation, and the space which he has devoted to the township, county, and city is not too long, considering their importance in the life of the people. His work is admirably adapted for the purpose for which it was written, that is, for use as a text-book, and at the same time for the service of the general reader, who will do well to bear in mind the remark that "every institution is the outgrowth of experiences." Its educational value is increased by the addition of "Suggestive Questions and Directions," prepared by Mr. F. A. Hill, and of bibliographical notes at the end of each chapter.

THE STORY OF THE ILIAD. By Dr. Edward Brooks, A. M. Philadelphia: The Penn Publishing Company. 1890.

The object of Dr. Brooks in putting the great Greek epic into prose was to supply young readers with something to take the place of the weak and rapid literature now so much read, and to give them a taste for what is elevated and enduring. Dr. Brooks's version of Homer's story runs easily and probably will recommend itself to those for whom it is intended.

HOUSEHOLD HYGIENE. By Mary Taylor Bissell, M. D. New York: N. C. Hodges. 1890.

A manual of valuable suggestions regarding sanitary house-building and housekeeping, for the information of the women of

the household as those to whom the sanitary regulation of the home is generally relegated. The contents have mainly appeared as contributions to the Art Interchange Company. This little volume is one of Mr. Hodges's "Fact and Theory papers."

BOOK NOTICES.

We have received from S. A. Maxwell & Co., a copy of "All around the year 1891" calendar, published by Lee & Shepard of Boston. It consists of fourteen cards with charmingly tinted illustrations of child-life by Pauline Suter.

Messrs. Taylor, Austin & Co., of Cleveland, Ohio, have issued in small pamphlet form Cardinal Newman's excellent "Definition of a gentleman."

Messrs. Roberts Brothers of Boston have just published a tastefully got up edition of Sir Edwin Arnold's "The Light of Asia," with a series of illustrations taken chiefly from photographs of Buddhist sculptures and frescoes found in ancient ruins of India averaging 2000 years old, representing scenes in the life of the founder of Buddhism. The design on the cover illustrates the four principal events in the life of Gautama, the Birth, the Meditation, the Preaching and the Nirvana, as represented on a bas-relief found at Sarnath near Benares.

Mr. James Goldsmith of New York has published an Ethical Society's Album, consisting of a series of portraits on celluloid of the leaders of the Ethical Culture Movement.

Christ: the Pupil of Buddha. A Comparative Study, founded on Lillie's "Buddhism in Christianity," giving in parallel columns the traditions relating to Jesus and Gautama, and some of their doctrinal teachings. (Brentano, New York.)

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THE MONIST.

A NEW QUARTERLY MAGAZINE.

OF

PHILOSOPHY, SCIENCE, RELIGION, AND SOCIOLOGY.

CONTENTS OF NO. 1 (OCTOBER, 1890):

- Mr. A. R. Wallace on Physiological Selection. By GEORGE J. ROMANES LL. D., F. R. S.
The Immortality of Infusoria. By ALFRED BINET.
On the Material Relations of Sex in Human Society. By PROF. E. D. COPE.
The Analysis of the Sensations. By PROF. ERNST MACH.
The Origin of Mind. By DR. PAUL CARUS.
The Magic Mirror. By MAX DESSOIR.
The Psychology of Harald Høffding. By W. M. SALTER.
Philosophical Correspondence. France. By LUCIEN ARREAT.
Philosophy in American Colleges and Universities.
Book Reviews. English, French, and German Works.

This magazine, the first number of which appeared on October 1, 1890, will be devoted to the establishment and illustration of the principles of Monism in Philosophy, Exact Science, Religion, and Sociology. Each number will contain letters or reviews from eminent European thinkers concerning the present state of Philosophy and Science in their respective countries, and criticisms of recent publications in the special departments with which *The Monist* is concerned. Contributions and articles will appear in subsequent numbers from the pens of Prof. JOSEPH LE CONTÉ, Prof. W. JAMES, Prof. ERNST HAECKEL, CHARLES S. PEIRCE, Prof. MAX MÜLLER, Prof. C. LOMBROSO, Prof. F. JOUL, LUCIEN ARREAT, Prof. HARALD HOFFDING, and many others.

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THE TIDINGS OF JOY.

THE Christmas gospel is a tidings of joy ; but its joy is very different from the happiness that is so eagerly sought for by thousands and millions of wretched beings who tire themselves out by hunting shadows.

It is natural that only two religions have a festival of rejoicing in the birth of a child destined to be the saviour of the world ; Buddhism, namely, and Christianity.

Buddhism and Christianity are the religions of resignation. They demand that we shall willingly and unhesitatingly take up our cross ; that we shall not shirk tribulations, suffering, and least of all death ; that we shall renounce all cravings for pleasure, sacrifice all desires of egotism, and in fact give up our very self, which is the source of all our unsatisfied yearnings.

Buddhism and Christianity, being religions of self-denial, have been called pessimistic world-conceptions. In a certain sense they are pessimistic, in another sense they are not. They ought to be called melioristic. Recognizing to its full extent the truth of pessimism, recognizing all the misery that exists in the world and the wretchedness of living creatures, the religions of self-denial are preached to show the path of salvation. In this sense Buddhism and Christianity are the religions of joy.

Says the Apostle : " Rejoice always ! " and again he describes himself and his co-workers as the ambassadors of Christ : " As unknown, and yet well known ; as dying, and behold we live ; as chastened, and not killed ; as sorrowful, yet always rejoicing ; as poor, yet making many rich ; as having nothing, and yet possessing all things. " Says Christ : " Rejoice and be exceeding glad ! " and the angel said to the shepherds : " Fear not, for behold I bring you good tidings of great joy, which shall be to all people. "

Wherever a religion of self-denial has been preached, it has always been a gospel of cheer, of gladness, of salvation. This seems to be contradictory, and yet it is natural.

The main idea of the religions of self-denial is a truth which, if lost, we should have to discover again. Similarly, if our knowledge of the law of gravitation were lost, we should have to discover it again. And if another than Newton had calculated its formula,

the formula would be exactly the same as it is now, whether it were expressed in Greek, or in English, or in Chinese.

Spiritual truth is no less rigorous than mathematical truth. Spiritual truth has to develop according to law no less than the flowers in the fields, no less than human civilization, the arts and the sciences. When the blossoms blow in springtide, it appears as if the earth had long been preparing and expecting this moment. Thus when Buddha was born, the Buddhistic gospels relate, that the angels sung, " This is the night the ages waited for. "

Is it surprising that so wonderful a truth as that life is love, salvation is self-surrender, and joy is the sacrifice of all desire, has been clothed in myths and decked with miraculous legends ? Is it surprising that great institutions were founded with ceremonies and rites in order to make comprehensible this spiritual truth to those who could not grasp it ? And again, is it surprising that in all these institutions the truth is overgrown and hidden by the myth ? The letter that killeth has prevailed over the spirit !

Science with ruthless criticism destroys the mythology which has so long prided itself as the truth. Yet science will never destroy the truth which has been the vitality in the germs from which sprang Buddhism as well as Christianity. And the religion of science, if it is to be a live power, must preach the same truth.

Science recognizes the struggle for life, but the religion of science brings peace. It brings the peace of soul that makes man one with that power which is the source of all life, one with that actuality which is the way, the truth, and the life ; so that what appeared as a struggle for selfish ends, now becomes work, and work, whatever it be, pleasant or disagreeable, sowing or reaping, ruling or obeying, drudgery or the work of enthusiasm and love, is all transfigured by being conceived as the performance of duty.

The religion of science does not preach asceticism, when it demands self-denial and a radical surrender of egotism. On the contrary, like the good tidings of Bethlehem, it proclaims a religion of joy—not for those who are rich, but for all the world ; first for the poor, yet also for the rich, if their hearts are fit to receive the gospel.

THE NATURE OF PERSONALITY ILLUSTRATED BY THE LIVES OF TWINS.*

BY TH. RIBOT.

The principle of individuation is the organism; it is such without restriction, immediately through the organic sensations, but mediately through the emotional and intellectual states. In order to prove this let us examine what takes place in cases of twins.

In the first place, we must recall to mind that twins represent on the average of births about 1 in 70. The cases of triplets or quadruplets are very rare, not more than 1 in 5000, and 1 in 150,000 respectively; to mention instances of these would uselessly complicate our researches. Let us further remember, that twins are of two species. Either each of them is germinated from a distinct ovule, in which case they may be either of the same or of a different sex; or they may have issued from two germinative spots in the same ovule, and then they are enveloped within the same membrane and are invariably of the same sex. The latter instance alone yields two personalities that are strictly speaking twins.

Leaving aside animals, we shall abide by man and take the problem in all its complexity. It is evident, that since the physical and moral state of the parents is the same for both of the twin individuals, a cause of difference has thus been removed at the very moment of procreation. As their development has for a starting-point the materials of the same fecundated ovule, there will exist a great probability of extraordinary likeness in the physical constitution, and consequently, according to our thesis, in their mental constitution also. Let us now glance at the facts that are in our favor; and afterwards consider objections and exceptions.

The perfect resemblance of twins is a matter of common observation. Since remote antiquity this topic has furnished subject-matter to the humorous poets, and later it has more than once been used by modern novelists. But writers have generally limited themselves to external resemblances, resulting from stature, form, face, voice, etc. But, there are other much deeper resemblances. Even long ago physicians had observed that most twins also present extraordinary agreement of tastes, aptitudes, faculties, even of fates. Recently Mr. Galton has made an inquiry on this subject, issuing lists of questions, to which about eighty answers were returned, thirty-five with the addition of minute details. Mr. Galton's aim, however, was totally different from our own. Through his researches upon heredity, he wished to determine by a new method the respective parts played

by nature and education; but among his material is much that is of profit to us.*

Mr. Galton reports a number of anecdotes similar to those which have been long current: a sister taking two music-lessons daily, in order to leave her twin-sister at liberty; the perplexities of a certain college-janitor, who, when a twin came to see his brother, did not know which of the two he ought to allow to depart, etc. Others evince a persistent resemblance under circumstances scarcely favorable to preserve it. "A. was again coming home from India, on leave; the ship did not arrive for some days after it was due; the twin brother B. had come up from his quarters to receive A., and their old mother was very nervous. One morning A. rushed in saying, 'Oh! mother, how are you?' Her answer was, 'No, B., it's a bad joke; you know how anxious I am!' and it was a little time before A. could persuade her that he was the real man."

But that which relates to mental organization has a still greater interest for us. "One point which shows the highest degree of resemblance between twins," says Galton, "is the similitude in the association of their ideas. No less than eleven out of the thirty-five cases testify to this. They on the same occasion make the same remarks, begin singing the same song at the same moment, and so on: or one would commence a sentence, and the other would finish it. An observant friend graphically-described to me the effect produced on her by two such twins whom she had met casually. She said: 'Their teeth grew alike, they spoke alike, and together, and said the same things, and seemed just like one person.' One of the most curious anecdotes that I have received concerning this similitude of ideas, was that one twin, A, who happened to be at a town in Scotland, bought a set of champagne glasses which caught his attention as a surprise for his brother B; while at the same time B, being in England, bought a similar set of precisely the same pattern, as a surprise for A. Other anecdotes of a like kind have reached me about these twins."

The nature and evolution of physical and mental maladies will also furnish very convincing facts. The latter only may interest psychology, but the former reveal a similarity in the innermost constitution of the two organisms which sight cannot discover in the form of external resemblances.

"I have attended professionally," says Trousseau, "a case of twin-brothers so marvellously like each other, that I was unable to distinguish between them unless I saw them side by side. This physical resemblance extended still further; they had an even still more remarkable pathological resemblance. One

*Translated from the French (*Diseases of Personality* Chap. I. 4.) by J. J. G.

*They will be found under the title "History of Twins" in his book *Inquiries into Human Faculty and its Development* (pp. 216-242), London: Macmillan, 1869.

of them, whom I saw in Paris, when he happened to be suffering from rheumatic ophthalmia, said to me: 'At this very moment my brother must be suffering like me.' And as I strongly protested against such an idea, a few days later he showed me a letter that he had just received from his brother, then at Vienna, and who wrote: 'I have got my ophthalmia, you must have yours.' However strange this may appear, the fact nevertheless remains incontestable. It was not a circumstance related to me, but an actual fact that came within my own experience, and during my practice I have witnessed other remarkable cases of this kind.* Galton furnishes several examples of which we will cite only the following: "Two twin-brothers, quite alike, warmly attached to each other, and having identical tastes, had both obtained government clerkships. They kept house together; one of them sickened of Bright's disease and died of it; the other sickened of the same disease and died seven months later."

We must nevertheless anticipate certain objections. There are twins of the same sex, who are dissimilar, and although statistics do not tell us in what proportion true twins (issues of the same ovule) present these differences, it is sufficient if it takes place only in a single case to be worthy of a particular discussion. The eggs of all animals possess the same anatomical structure, and chemical analysis can only reveal in them a few infinitesimal inequalities; still, the one produces a sponge, the other a man. This apparent resemblance, accordingly, must hide profound differences, although it escapes our most subtle means of investigation. Do they arise from the nature of the molecular movements, as certain authors think? We may suppose anything we please, on condition that we perfectly understand that the egg itself is already a complex thing, and that any two individuals emerging from it, strictly speaking, cannot be similar. Our perplexity only arises from our ignorance of the processes according to which the primitive elements group themselves in order to constitute each individual, and in consequence, of the physical and psychic differences which thence result. Some of Galton's correspondents have reported the curious fact of certain twins who were "complementary to each other." "There is," writes the mother of the twins, "a sort of reciprocal interchangeable likeness in expression that often gave to each the effect of being more like his brother than himself."—"A fact struck all our school contemporaries (writes a senior wrangler of Cambridge) that my brother and I were complementary, so to speak, in point of ability and disposition. He was contemplative, poetical, and literary to a remarkable degree. I was practical, mathematical, and linguistic. Between us we should have made a very

decent sort of a man." (Pp. 224 and 246.) The physical and mental capital seems to have been divided between them not by equality but by equivalence.

If the reader carefully considers how complex the psychic organization is in man; how improbable it is, by the very reason of this complexity, that two persons should be the repetition of each other, although twins approach it to an astonishing degree, the reader, as I maintain, will irresistibly be induced to think, that a single perfectly verified fact of this kind proves more than even ten exceptions, and that the moral resemblance is but the correlative of the physical resemblance. If by an impossible hypothesis any two men were created in such a manner that their respective organisms were identical as to constitution; that their hereditary influences were rigorously alike; if, by a still greater impossibility, both received the same physical and moral impressions at the same moment, there would not be any other difference between them than that of their position in space.

In closing this article, I feel somewhat ashamed of having accumulated so many data and proofs to establish a truth so evident to my eyes as the proposition: As the organism, so the personality. I should have hesitated greatly to do it, if it had not been too easy to show, that this truth has been forgotten and disregarded rather than denied; and that writers have almost always been contented to mention it under the vague law of the influence of the physical over the moral nature.

The facts that up to this point have been studied cannot alone lead to a conclusion: they only pave the way for it. They have shown that, reduced to its last elements, physical personality presupposes the properties of living matter, and their co-ordination; that, in the same manner as the body is only the organized and co-ordinated sum of all the elements that constitute it, so also the physical personality is only the organized and co-ordinated sum of the same elements as psychic factors. They express their nature and agencies, but nothing more. The normal state, the teratological cases, the resemblance of twins have proved it. The aberrations of the physical personality, or as M. Bertrand ingeniously calls them,* "the hallucinations of the sense of the body" contribute an additional amount of evidence.

HAPPINESS.†

BY COUNT LEO N. TOLSTOI.

IN the Government of Ufim once lived a Baschkir called Iljas. He sprang from poor ancestors, and his father died when Iljas had been married scarcely a year. Iljas's property then consisted of seven mares, two cows, and twenty sheep. But Iljas, like a good

* Troussau, *Clinique Médicale*, Vol. I, p. 252. "Leçon sur l'asthme."

* *De l'aperception du corps humain par la conscience*, p. 269, et seqq.

† From the *Gegenwart*, by H.

husbandman, knew how to increase his possessions. He was at work from morning to night with his wife, rose earlier and went later to rest than others, and became richer every year. Thirty-five years was Iljas thus active and acquired for himself great wealth.

At last Iljas possessed 200 horses, 150 head of oxen, and 1200 sheep. He kept hinds who guarded his herds, and maid-servants who milked the mares and cows and prepared kumis, butter, and cheese. Of all things Iljas had abundance, and he was envied everywhere around. "A happy man, this Iljas," said the people, "he has abundance of everything. He need not wish to die." Distinguished people sought Iljas's acquaintance and considered it an honor to associate with him. From great distances guests came to him, and Iljas received all hospitably, and entertained every one with sherbet and liquor. Whoever came found at all times kumis, and tea, and sherbet, and mutton at Iljas's board. Scarcely were guests arrived, than at once a sheep was dressed or even two, and if guests appeared in greater number probably a mare also would be slaughtered.

Of children Iljas had two sons and a daughter, all of whom were married. When Iljas was poor, his sons worked with him and themselves looked after the herds; but when he had become rich, they took things easy and gave themselves up to drink. The elder was killed in a fray, and the younger, who had married a proud woman, wished no longer to be subject to his father, so that Iljas was obliged to establish him in separate housekeeping. He gave him a house, and cattle, and everything that was necessary, and thereby diminished his own wealth considerably.

Soon afterwards Iljas's flocks of sheep were attacked by a pestilence which swept away many of the animals. Then came a year of drought, the hay did not thrive, and numerous oxen perished in the course of the winter. Then the Kirghis stole Iljas's best horses from the pasture, whereby his property was grievously damaged. Continually deeper and deeper sank Iljas downwards, whereby his power diminished year by year. And when Iljas was nearly seventy years old he was obliged to sell his furs and carpets, his saddle and cart; then, finally, came his oxen, and one fine day Iljas possessed nothing more. Ere he was aware, everything was gone, and he was compelled in his old age with his wife to enter the service of strange people. Nothing remained to him but the clothes on his back, his furred coat, his cap, his shoes, and his helpmate Schamschemagi who had also grown old. His son, whom he had started in life, had removed into a far country, his daughter was dead, and there was no one from whom the old people could find help.

Then a neighbor, Muchamedschach by name, com-

miserated the aged couple. Neither poor nor rich, Muchamedschach lived plainly and was an excellent man. He thought how once Iljas had been a good neighbor to him, and said therefore compassionately to him: "Come, you and your wife can live with me. In the summer, you can so far as your strength allows, work in the vegetable-fields, and in winter feed the cattle, while Schamschemagi can milk the mares and prepare kumis. I will feed and clothe you, and if there is anything else you need, only mention it and I will give it to you."

Iljas thanked his neighbor and went to with his wife among Muchamedschach's domestics. At first they felt it hard, but soon became accustomed to their new state; they lived contented and worked according to their strength. The master of the house found it to his interest to maintain such workers, since the old people had once themselves been housekeepers and understood the work. When Muchamedschach saw them at work, he deplored in his heart that people who had once stood so high had been compelled to fall so low.

One day it happened that a guest from a distance came to Muchamedschach, a matchmaker who proposed for his daughter. The Mollah also came with him. Muchamedschach told Iljas to kill a sheep; Iljas obeyed the command, made ready the sheep, and served it up for the guests. The guests ate of the flesh, drank tea with it, and then addressed themselves to the kumis. The host and the guests sat on down pillows and carpets, drunk kumis out of bowls and gossiped, while Iljas vigorously performed his work in house and courtyard.

As he passed by the door, Muchamedschach perceived him and said to one of the guests: "Did you see the old man there, who just now passed before the door?"

"I saw him," replied the guest, "what is there peculiar about him?"

"The peculiarity about him is, that this old man was once the richest man in our neighborhood. He is called Iljas—perhaps you have heard of him."

"Certainly," replied the guest, "the recollection of him is still fresh among us."

"Well, you see, nothing more is now left to him; he lives with me as a servant and his wife with him; she milks the mares in the stable."

Then the guest wondered in himself, chuckled, and shaking his head said: "Ah, there one sees how fortune turns like a wheel: some it raises on high, others it casts down. The old man grieves very much for his fortune, I guess."

"Who can know! He lives quietly and peacefully, and works industriously," answered the host Muchamedschach.

"Could we not speak with him?" asked the guest.
 "Might I freely question him about his life."

"Ask him, if you wish," replied the host. Then he called loudly outside the door:

"Babaj (which in Baschkirisch means 'grandfather') come here, and drink kumis with us and call your old woman also."

Iljas came with his wife, saluted the guest and the host, repeated a prayer, and squatted near the door on the stones. But Schamschemagi went behind the curtain and sat herself near the hostess.

They handed Iljas a bowl of kumis. He bowed to the guest and to the host, drank a little, and placed the bowl aside. "Say now, grandfather," addressed the guest to him, "you must still be very sorrowful at heart, when you see us thus and think of your former life, how then you lived in good fortune and now live in indigence?"

Iljas smiled and said:

"If I were to tell you my opinion of fortune and misfortune, you would not believe me. Therefore rather ask my wife, she is a woman; what she has in her heart, she has also on her tongue. She will answer your question honestly and according to her best knowledge."

Then spoke the guest, as he turned towards the curtain:

"Well then, grandmother, do you tell me what you think about your former good fortune and your present indigence."

And Schamschemagi from behind the curtain began:

"Hear what I think about it: Fifty years lived I together with the old man; we sought happiness and found it not. Now, for a year past, nothing more is left to us, and we have to serve among strange people—now we have found true happiness and desire nothing different."

Then were the guests surprised, and the host wonderingly, rose up and flung the curtain back in order to see the old woman. But Schamschemagi stood there with folded hands looking at her husband, and the old man smiled at her. And once again she began:

"I speak in earnest and not in jest. For half a hundred years we sought happiness and did not find it, so long as we were rich. Now nothing is left to us, we live with menials, and have found such happiness that we do not want any other."

"And in what consists then your happiness?"

"That I will tell you. When we were rich we had not an hour of rest, we could not speak to each other, neither think of our souls, nor say a prayer to God—so many cares had we. If guests came to us, it was necessary to care for them, so that they might be entertained while they were present, in order that they

might not speak against us. Were the guests departed, it was necessary to look after the domestics, who live only to be lazy and to love tit bits, we had to keep our eyes open, that everything should not go to ruin, had to scold and sin. Then there is anxiety lest the wolf strangles the foals or the calves, lest thieves break into the herds and take away the horses. If one allows oneself to sleep, one is afraid that the sheep will crush the lambs; he gets up and goes to the stable in order to look after them. Scarcely has one composed oneself about the lambs, than he begins to be anxious anew, how fodder was to be provided. Thus quarrel and strife was frequently produced between me and my husband, he said 'It must be so,' I replied so and so, and there was discord and sin. Thus we lived from care to care, from sin to sin, and did not succeed in finding happiness."

"Well, and now?"

"Now we rise with God, always speak to each other in love and concord, have nothing to dispute about, nothing to be anxious about—beyond that we serve the householder well. We work, so far as strength allows, work with love, that the householder may have no loss, but profit. When we come, dinner is ready, supper is ready, and there is also kumis. Is it cold, some one takes fuel and makes a fire; also a furred-coat is at hand. We have time to talk with one another, time to think of our souls and to pray to God.—For fifty years have we sought happiness and it is now first come."

The guest began to laugh, but Iljas said: Do not laugh, brother, for this is not a jest, but human life. Once I also and my wife were so foolish as to deplore our lost wealth, but now God has revealed to us the truth, and not for our diversion, but for your prosperity do we proclaim it to you."

"That is very well said," spoke the Mollah. "The simple truth has Iljas spoken, as it is written in the Scripture."

Then the guest became meditative and ceased to laugh.

CURRENT TOPICS.

Among the curious forms of hero-worship which prevail in Ireland, is the custom of taking the horses from the hero's carriage, and drawing him through the streets by man power instead of horse power. The idolators of Mr. Parnell performed this absurd ceremony in his honor on the occasion of his recent visit to Dublin; and when Mr. Davitt, a leader of the rival faction arrived, his worshippers did the same thing for him. The whole performance reminds us of Curran's experience when he made his great speech on the trial of Hamilton Rowan. His enthusiastic admirers took his horses from his carriage, and drew him in triumph from the Court house to his home. Speaking of the affair some time afterwards, when dining with some friends in London, Mr. Curran said: "That was the greatest honor I ever received, but—I never saw my horses again."

One of the most touching exhibitions of pathos is the sorrow of a newspaper when a banker fails, sorrow for the banker, not for the depositors. The gloom of his grief throws a misty, tearful fog over all the particulars, and there seems to be a defect in our civilization when such a speculating genius, such a lavish borrower, such a luxurious consumer can fail; and for such a ridiculous and insufficient reason as "Want of Capital," and prosy matter of fact like that. With what eloquent art, sympathy for the victim of "monetary stringency," is turned into doleful moralizing over the Secretary of the Treasury; and in ponderous editorial appears the wail of the stock market, "Why doesn't he come to the help of poor bankers? Why doesn't he stimulate Wall Street by purchasing bonds, or silver, or cotton, or corn, or something? Why doesn't he trade old lamps for new ones, or new lamps for old ones? Why doesn't he deposit the public taxes with impecunious bankers in "sufficient quantities" to enable them to speculate with the money, and thus grease the wheels of business? Then comes a bit of solemn reproof to industry for tightening the money market, by withdrawing "confidence," and even money from speculative bankers, who have no money of their own. It is a reprehensible thing when industry withdraws its "confidence" from speculation, and balloons burst.

According to the opinion of Gen. Miles, whose opinion ought to be worth something, the Indian trouble in the North West, is like a great many other troubles in this world, a question of "rations." A hungry Indian is not much better than a hungry white man; and the problem seems to be this: Is it cheaper to feed than to fight him? This is a mercenary view of it, neither wise nor kind, but even as a matter of economy, it is cheaper to feed the Indian than to fight him, to say nothing of the humanity and justice of the plan. If, as Gen. Miles declares, the Indian has been "starved into fighting," we ought to send him corn instead of lead. It is a question of duty; and if the Indians have been cheated out of the food to which they are entitled by treaty or otherwise, we ought to remove the cause of complaint, and also the officials who have done the cheating. No doubt there is money for some people in an Indian war, but there is little glory in it for a great government.

Among the fantasies of the recent Kansas ballot-boxing was the election to Congress of an unsophisticated son of the prairie, who has already achieved a national reputation as the "sockless statesman." Like the immortal Chollup, he is "a child of nature, whose bright home is in the settin' sun," a "typical American" who despises the effeminacy of socks or stockings; and probably of boots or shoes, though as to these, the returns are not all in. It is fair to presume, however, that a "sockless" statesman must be shoeless also; or at least, that he would not stoop to anything more civilized than moccasins. As might be expected, the sockless statesman goes by the name of "Jerry," an unpretending, familiar, democratic name, which it is well for a candidate to have, especially in the West. Jerry anything is always a very hard man to beat. A statesman in moccasins must have the rest of his clothes to correspond; leggings, for instance, a buckskin coat, and a hat made from the skin of a loon or a coon. How proud we shall all be, those of us who delight in the fascinating tales of Cooper, to see the reincarnation of dear old Leatherstocking sitting in the halls of Congress.

It seems, after all, that a principle was concealed in the moccasins of the "sockless statesman," and that his repudiation of socks is not a whimsicality, but a sacrifice, freely made for the sake of his political convictions. This is only just now made public, and it might never have been found out at all, were it not re-

vealed in the spirited letter quoted below. Naturally enough, the eccentricity of the Honorable Member, threatens the hosiery trade with serious disaster, because if a member of Congress can go "sockless," other people can, and the example may work mischief. Having this view of it, and with the hope of beguiling the Hon. Member into the habit of wearing socks, a New Jersey manufacturer sent him a very elegant assortment of silk, woolen, and cotton hosiery, but with Roman courage he resisted the temptation, and sent the enervating luxuries back, accompanied by this letter, "Sir: Our forefathers refused to drink tea because it was taxed 3 per cent., and held a tea party in Boston for the purpose of getting rid of the stuff. I have just finished figuring up the tax upon those stockings, and I find that it amounts to 76 per cent. I will wear no socks until the tax is taken off."

When a man resolves to go without socks on principle, the logical end of his resolution is that he must go without all other things that come within the principle, and therefore the "sockless statesman" will be compelled to sit in the halls of Congress dressed in the garb of Leatherstocking, because all store clothes are taxed as high as hosiery, or higher. There is only one alternative; the Hon. Member may own a few sheep, and by the aid of his wife, he may be able to appear in Washington arrayed in home-spun woolen clothes; otherwise he must clothe himself in deer skin. And how does he manage to get along without ploughs, or axes, or wagons, or harness, or nails, or crockery, or coal, or blankets, or needles and thread, or any other article necessary for his house, or his farm? He may baffle death, but not the tariff. He may evade the taxes on shoes and stockings, and coats, but a home-spun plough is beyond the skill of the women folks, and so is a home-spun wagon.

A curious bit of tragi-comedy is reported from Scottdale, Pa., the H. C. Frick Coke Company having banked 255 ovens, whereby many workmen were thrown out of employment, retained the married men as far as practicable and discharged the single men. The company resolved to give the married men work for the whole winter if possible, and this premium on matrimony threatens to stampede the bachelors and drive them all into the ranks of the married men. "It is better to marry than burn" says the scripture, and these young men think it is better to marry than starve. Accordingly, they held a meeting a few days ago, at which it was resolved that all of them should get married before New Year's day, and that none should ask for a respite or reprieve. The dispatch informs us that this action "has caused a great flutter among the young women of the coke region"; but it does not say whether this is because they expect to be seized and married by force like the Sabine women, or for fear they may escape that fate. Under duress like that, it is better to burn than to marry.

A desperate young malefactor has been convicted in Ohio of the crime of plagiarism. He was a competitor at one of the colleges for the first prize in oratory, and won it; whereupon the rival orators declared that the winning oration had a familiar twang, and they thought they had heard it somewhere. A search through the college library was therefore organized, and in one of the great speeches of Wendell Phillips, the prize piece was found, or, as the lawyers have it, "words to that effect," a piece having such a strong family likeness to it, that it might pass for a twin brother. Upon this discovery the "faculty," solemn as a coroner's jury, sat on the aspiring orator and brought in a verdict of "Plagiarism" against him, with a recommendation that he be held to answer without bail. The ambitious young Demosthenes denied the charge of wilful plagiarism, but admitted that he had read the speech of Wendell Phillips, and might have "absorbed"

some of it, by the process of "unconscious cerebration." The excuse availed nothing, and the "laurels were torn from his brow." The lad is entitled to sympathy, because in a land where fine dinners are the prize of babble, the temptation to be an orator is great. Let punishment fall not upon the boy, but upon the "faculty" which deliberately, and premeditatedly directs the mental energies of youth away from work and learning, to the habit and dissipation of everlasting gab. M. M. TRUMBULL.

BOOK REVIEWS.

DIFFERENT NEW TESTAMENT VIEWS OF JESUS. By Joseph Henry Crocker. Ann Arbor, Mich. Register Publishing Co., 1890.

The purpose of Mr. Crocker in this essay is to state the main facts respecting the subject referred to in the title, which reveals his state of mind in relation to it. The existence in the New Testament of at least three different views of Jesus is apparent to any unprejudiced student. Mr. Crocker proposes to treat in a forthcoming volume of the causes which contributed to the progressive idealization of Jesus. M.

INQUIRENDO ISLAND. By Indor Genoue. New York, Twentieth Century Publishing Company, 1890.

The boat of the hero of this story, one John Cliff, is carried by a strong current to an unknown island, inhabited by the descendants of nine persons, men and women, who had reached it some centuries earlier from a shipwrecked vessel, by means of a raft. The man who constructed the raft was called "Numbers," and another member of the party, who was an ingenious artisan, had the name of "Angel." In a few generations the religious ideas transmitted orally from parents to children became mixed up with the story of the escape on the raft, and an old arithmetic book having been found on the seashore, it was thought to be the Bible, of which a tradition had been handed down. The details of the story which is intended for a satire on current views of religion are ingeniously worked out, but we doubt whether, without the assistance of the explanation given at the end of the book, the full force of the satire would be recognised. M.

BOOK NOTICES.

Origin of the Plane-Trees. By Lester F. Ward. The object of this pamphlet, which is reprinted from the *American Naturalist* of September 1890, is to derive the living species of *Platanus* from the fossil ones, and to point out the line of descent of the former, but not to show the origin of the genus itself. One of the distinctive links in the chain of evidence is the presence of basal lobes, which were recognised by Professor Jankó, the great authority on *Platanus*, but without any suspicion of its significance.

The first number of a new illustrated magazine, to be called the *Bacteriological World*, will appear on or before January 1, 1891. Its mission is to be "the general dissemination of knowledge on the subject of bacteriology in general, and pathological micrology in particular." A special feature of the magazine will be a plain and complete illustrated course in bacteriology, running through a series of numbers in lessons of three or four pages each, for the benefit of readers yet unacquainted with the subject. Special arrangements have been made for supplying information as to the latest observations and discoveries made in the most renowned European laboratories. The price will be three dollars per annum, or thirty cents for single numbers. Bacteriological World Publishing Co., Columbia, Mo.

We have received a copy of the Discourse before the *Rhode Island Historical Society*, at its Centennial Celebration of Rhode Island's adoption of the Federal Constitution, by General Horatio Rogers, President of the Society. The Discourse was intended to be a definitive and authoritative statement of the reasons which

prompted the State of Rhode Island "to hesitate with anxious deliberation, and afterwards freely and fully to abandon" its independent character and become "an integral part of an indissoluble nation." "The very liberality," says General Rogers, "of her cardinal principle and of her royal charter seems to have made her fearful of losing what of liberty she had gained; so the radicalism of her early days has reacted upon her, producing an intense conservatism." Rhode Island Providence Press.

Report of the Calcutta Psycho-Religious Society for the year 1889. As appears from the speech of Babu K. Chakravarti, the Secretary, this Society is a product of the general awakening to thought which followed the preaching of theosophy in India. Judging from the Report, and from the lectures by Mr. Chakravarti (given as appendices), the society is doing good work in studying the sacred literature of the ancient Hindus, particularly the *Tantras*, which treat of the attainment of superhuman power through the medium of spirits, and the *Vega* philosophy. There is much in the latter that reminds us of the phenomena of modern hypnotism. The nature of Tantric worship may be judged of from the statement, that "there is not a subject now known in Europe and America in connection with Spiritualism which was not known before in India." One of the most interesting of its phenomena is that of the "spirit mirror," which is said to reflect "many incidents past and future, in a man's life." Mr. Chakravarti is making special investigations on this subject. Calcutta: A. C. Hajra.

A little pamphlet has come to our hands entitled *Eraste Gedanken*, written by M. Von Egidy, Lieutenant-Colonel in the Saxon Regiment of Husars, No. 18, Grossenhain Saxony. The author we are informed on most reliable authority, had on account of this pamphlet to resign his position in the army. And why? Are the opinions set forth such as would make a man unfit for being a military officer? Are they subversive of state or church institutions? Are they expressions of an irreligious spirit? On the contrary! They show a man who has the courage of his convictions, a man who with Hutten says, "Ich hab' gewagt!" They exhibit a man deeply moved by a religious conviction, which is such as would purify and revive the dead condition of the German State Churches. The pamphlet is a cry of religious despair because "the church in its present form, (viz., the Saxon State Church) does not fulfil its mission." Religion to Colonel Egidy is not the dogma of "Jesus Christ being a veritable God born of the father in Eternity." Religion and also Christianity is to him moral life. He says:

"Only he who kindles in himself the spark of love as a luminous flame, is warmed, is enlightened. The more strongly the flame burns in him, the more intimately, the more consciously walks he with his God; with every feeling of love God's being manifests itself more intelligently in him; with every act of love is the God-idea more vigorous in him; always lighter, always clearer, always more intelligible form appears the being of the all-embracing love before him, and he feels, that the love of God is infinite; he feels it and now he has comprehended and experienced the Father, that he is of the 'like kind,' that the same love lives in him—now he knows himself gladly a child of God."

"That is my conception of religion."

"And Christianity? Christianity is religion, is my religion, is your religion, dear reader—is the religion, as the founder of which we regard Christ, to the extent that he has told us how we should receive and obey the ten commandments set forth by the mighty law-giver Moses. Moses has established the 'what' God wills by a law. Christ illuminated this 'what' with his enlightened knowledge of God's being—'God is love'—and preached to us the 'how' it should come to pass. 'You have heard; that to the ancients is said—But I say to you.' Therein lies no opposition but a fulfilment, and as far as this fulfiling verifies itself in mind and deed, is Christianity the most perfect religion."

We add no comment, but we express a deep regret that the reactionary spirit has grown so strong as even to persecute the pious and devout believer who dares to dissent and tries to put new life into the dead body of his church.

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EMOTIONAL DISORDERS.*

BY TH. RIBOT.

THE desires, feelings, passions that impart to character its fundamental tone, have their roots in the organism and are predetermined by it. The same applies to even the highest intellectual manifestations. Still, as the psychic states here play a preponderating part, we shall treat them as the immediate causes of the changes of personality, without forgetting, however, that these causes are in their turn effects.

Without presuming to give a rigorous classification of the emotional manifestations, which we have not to follow up in detail, we will reduce them to three groups of which the psychological complexity goes on increasing, while the physiological importance decreases. They are: (1) the tendencies connected with the preservation of the individual (nutrition, self-defense); (2) those relating to the preservation of the species; (3) the highest of all, those which presuppose the development of intelligence (moral, religious, æsthetic, and scientific manifestations, ambition in all its forms, etc.) If we consider the development of the individual, we shall find that it is in this chronological order the sentiments appear. We see it in a marked degree in the evolution of the human species. Inferior human races—with whom education does not correct nature by furnishing the accumulated result of the work of centuries—never pass beyond the preservation of the individual and of the species, or at most exhibit only a slight trace of the sentiments belonging to the third group.

The emotional states connected with nutrition constitute with the child in its early infancy the only elements, as it were, of its nascent personality. Thence arise comfort and peevishness, desires and aversions. It constitutes that sense of the body about which we have spoken so much, arrived at its highest psychic expression. As natural causes, too manifest to need further explanation, cause nutrition almost exclusively to predominate with the child, it follows that the child has, and can only have, a personality almost entirely nutritive, that is, the most indefinite and lowest form of personality. The ego, for him who does not re-

gard it as an entity, can here only be a compound of extreme simplicity.

As we grow up from infancy the preponderating rôle of nutrition will diminish; still, it will never completely lose its rights, because among all the properties of the living being it alone remains fundamental. Thus it happens that important alterations of personality are associated with its variations. When nutrition is diminished, the individual feels himself depressed, weakened, contracted; when it is increased, he feels himself excited, strengthened, expanded. Among all the functions whose harmony constitutes this basic property of life, the circulation seems to be that one of which sudden variations have the greatest influence upon the emotional states and display themselves by an immediate counter-stroke; but let us leave aside detailed conjectures, in order to investigate the facts.

In the states known under the names of hypochondria, lypemania, melancholia (in all its forms), we find alterations of personality that imply all possible degrees, including complete metamorphosis. Among these different morbid states physicians have marked certain clinical distinctions, but these are not very important here. We can include them within a common description. In such morbid states there is a feeling of fatigue, of oppression, anxiety, depression, sadness, absence of desires, permanent lassitude. In the most serious cases, the very source of the emotions is completely dried up: "The patients have become insensible to everything. They have no longer any affection for parents or children, and even the death of persons that were dear to them, would leave them perfectly cold and indifferent. They cannot weep, and nothing moves them except their own sufferings."* As regards activity, there is torpor, loss of power to govern the actions or even the will, overpowering inaction for many hours, in a word, that "aboulia" (lack of will) of which we studied all the forms in treating of the diseases of the will. As regards the external world, the patient, without being under an hallucination, finds that all his relations to it are changed. It seems as if his habitual sensations had lost their usual character. "All that surrounds me," said one of them, "is still as formerly,

* Translated from the French (*Diseases of Personality* Chap. II. 1.) by J. J. G.

* Falret, *Archives générales de médecine*, December, 1878.

and yet a change must have been effected; things still have their old forms, I can see them perfectly well, and yet they have also changed a great deal." One of Esquirol's patients complains that his existence is incomplete. "Each of my senses, each part of myself is, as it were, separated from me, and can no longer give me any sensation; it seems to me that I never actually reach the objects that I touch." This morbid state, due sometimes to cutaneous anæsthesia, may increase to such an extent "that it seems to the patient that the real world has completely vanished out of sight, or is dead, and that there only remains an imaginary world, in which he is afraid of dwelling."* To this picture we may add the physical phenomena; such as disturbances of the circulation, of the respiration, and of the secretions. The emaciation of the subject may become considerable, and the weight of the body very rapidly diminish during the period of depression. The respiratory function is impaired, the circulation reduced, and the temperature of the body lowered.

By degrees these morbid states take form, organize themselves, concentrate themselves in some wrong conception, which—having been excited by the psycho-physiological mechanism of association—becomes in its turn a centre of attraction toward which everything converges. One patient will say that his heart has become petrified, another that his nerves are like burning coals, etc. These aberrations have innumerable forms, and vary according to individuals. In extreme cases the individual will doubt his own existence, or deny it. A young man, while maintaining that he had been dead for two years, expressed his perplexity in the following words: "I exist, but outside of real material life and despite myself, for nothing has really killed me. Everything in me is mechanical, and takes place unconsciously." Is not this contradictory situation, in which the subject claims to be alive and dead at the same time, the logical and natural expression of a state in which the old ego and the new, vitality and annihilation seem to keep in equilibrium?

Still, the psychological interpretation of all these cases is not doubtful. They are organic disturbances, the first result of which is to depress the faculty of feeling in general, and the second effect is to pervert it. In this manner there is formed a group of organic and psychic conditions that tend profoundly to modify the constitution of the ego in its inmost nature, because they do not act after the manner of sudden emotions, the effect of which is violent and superficial, but by slow, silent actions of unconquerable tenacity. At first this new mode of being seems strange or ex-

traneous to the individual and outside of his ego. By slow degrees, however, and through habit, this new feeling insinuates itself into and becomes an integral part of the ego, changes its constitution, and when of an overpowering nature, entirely transforms it.

In perceiving how the ego is dissolved, we understand also how it is made. In most instances, doubtless, the alteration is only partial. The individual, while seeming to become another to himself, and to those who know him, still preserves a fundamental feeling of himself. In fact, complete transformation can only be a very rare occurrence; and we may observe, moreover, that when a patient maintains that he is changed or transformed, he is actually right, notwithstanding the denials or hilarity of his friends. He really cannot feel otherwise, because his consciousness is but the expression of his organic state. Subjectively he is not the sport of any illusion; he is merely what he ought to be. On the contrary it is the unconscious unacknowledged hypothesis of an independent ego,—existing by itself as an unalterable entity,—which instinctively urges him to believe, that this change is only an external event, a strange or ridiculous garb in which his personality has been wrapped, while in reality the change is internal, and implies certain losses and acquisitions in the substance of the ego itself.

* * *

The counterpart of these partial alterations is met with in cases where the ego is exalted and elated, and ascends extremely far above its normal tone. Instances of this are found at the beginning of general paralysis, in certain cases of mania, during the excited period of so-called "cyclic" insanity. It forms altogether the inverse of the previous picture. Here we have a feeling of physical and moral well-being, superabundant strength, exuberant activity, which vents itself with reckless prodigality in speeches, projects, enterprises, and incessant, fruitless journeys. To this superexcitation of the psychic life corresponds an overactivity of all the organic functions. Nutrition increases—often at an exaggerated rate—respiration and circulation are quickened, the genital function is aroused; and notwithstanding a great expenditure of force the individual does not feel any fatigue. Afterwards these several states group themselves, become unified and finally to a considerable extent transform the ego. One individual may feel herculean strength, and be able to lift prodigious weights, procreate thousands of children, race with a railway-train, etc. Another patient is an inexhaustible mine of learning, imagines himself a great poet, artist, or inventor. At times the transformation approaches still nearer to complete metamorphosis; and then the subject, entirely engrossed with the feeling of his matchless

* Griesinger, *Traité des maladies mentales*. Fr. trans. p. 265. *L'Encephale*, June, 1882.

power, proclaims himself pope, emperor, god. "The patient," as Griesinger justly observes, "feeling proud, bold, cheerful; discovering in himself an unwonted freedom in all his decisions; and moreover, feeling the superabundance of his thoughts, is naturally prone to ideas of grandeur, rank, riches, or some great moral or intellectual power, which alone can have the same degree of freedom, of thought, and will. This exaggerated idea of force and of freedom must nevertheless have a motive; there must exist in the ego something that corresponds to it; the ego must momentarily have become entirely another; and the patient knows no other way of expressing this change, than by proclaiming himself a Napoleon, a Messiah, or some other exalted being." *

It would be a mere waste of time to endeavor to show, that this transformation of the ego, whether partial or complete, momentary or permanent, is of the same nature as in the preceding instances, and that it presupposes the same mechanism, with this sole difference that here the ego is dissolved in the inverse sense, not through defect but through excess.

These alterations of personality into more or less, this metamorphosis of the ego, which either raises or lowers it, would be even more remarkable if in the same individual they followed at regular intervals. As a matter of fact, an instance of this very frequently happens in so-called "cyclic" madness, or insanity in double form, essentially characterized by successive periods of depression and excitement, following each other at regular intervals, and in some patients with occasional intermissions of lucidity. This is illustrated in the following instance reported by Billod: †

"A lunatic, an inmate of the asylum at Vanves, about every eighteen months would let his beard grow and introduce himself to the whole house, quite changed in dress and manners, as a lieutenant of artillery, named Nabon, recently arrived from Africa, to become a substitute for his own brother. He would say, that before leaving his brother had imparted to him information respecting every one; and at his arrival he would ask and obtain the honor of being introduced to each person present. The patient thereafter for several months remained in a state of marked exaltation, adapting his whole conduct to his new individuality. At the expiration of a certain time, he would announce the return of his brother, who, as he said, was in the village and would come to replace him. Whereupon he would have his beard shaved off, change his dress and manner, and resume his real name. But then he would exhibit a marked expression of melancholy, walking along slowly, silent, and solitary, usually reading the *Imitation of Jesus Christ*, or

the *Fathers of the Church*. In this mental state—a lucid one perhaps, but one that I am far from regarding as normal—he would remain until the return of the imaginary Lieutenant Nabon."

The above-mentioned case conclusively shows an exaggeration of what takes place in the normal state. The ego of all of us is made up of contradictory tendencies, such as virtues and vices, modesty and pride, avarice and prodigality, desire for rest and craving for action, and many others. In the ordinary state these opposite tendencies are balanced, or, at least, that which prevails is not without a counterpoise. But here, through very well determined organic conditions, there is not only an impossibility of equilibrium, but a group of tendencies is hypertrophied at the expense of the antagonist group, which is atrophied; then a reaction takes place in an inverse sense, so that the personality, instead of consisting of those average oscillations of which each represents one side of human nature, passes constantly from one excess to the other. Incidentally we may observe that these diseases of personality consist in a reduction to a more simple condition. But this is not the place to insist on this point.

A CRITICISM OF "THE ETHICAL PROBLEM."

BY PROF. FRIEDRICH JODL.

In your work "The Ethical Problem," I have read much with the heartiest approval, and with admiration of your frequently so happy, popular style of expression. Other things there were, however, that neither met my approval, nor were intelligible to me.

As the two points in your views with respect to which this was most the case, let me cite your polemical attitude towards Hedonism, and your reference to nature as a moral standard. What you oppose as Hedonism may deserve, indeed, your attacks; but I know of no author since La Rochefoucauld and Helvetius that has advocated such a hedonism.

The principle of general welfare as a criterion of the ethical value of character and acts, has, so far as I can see, been entirely neglected by your criticism. And how we can hope to overcome the old orthodox conception of ethics, without representing the new scientific ethics as eudemonism, I do not know. Let man, in his most virtuous conduct and in his most heroic acts, seek his happiness, on condition only that it take place in a manner and with means that are qualified also to promote the happiness of others. The whole question simply is, to teach men to seek happiness in the right way. Happiness itself need not therefore be eliminated from their thoughts. And this conscious striving after happiness is the very characteristic also that distinguishes human conduct from all natural phenomena. Nature is wholly disregarding of individuals; she merely creates, pro-

* Op. cit., p. 331.

† *Annales médico-psychologiques*, 1898, according to Ritti op. cit., p. 156.

duces in the greatest possible abundance, and thus maintains herself in equilibrium. What sacrifices this may cost, the destruction caused by it, is of no consequence. Her procedure is the type of what we may characterize as colossally brutal immorality. But her human victims gradually came to speech and thought: the whole history of morality is to me nothing but a growth of nature out and beyond itself, an aspiration to replace natural laws by the laws of rational will, to win for every living being his rights to put into the blind-mechanical play of natural forces the soul of a purpose—eudemonism. How much have we already won, how much yet remains? Reason and will, however, are still too feeble, we still copy too much "our good mother nature," confide ourselves only too willingly to her guidance, and we constantly have to experience that what she wants and what we want are two wholly different things.

There are many passages in my *Geschichte der Ethik* which represent my views perhaps more precisely and fully than I have done here. Yet I state them here again, because our common cause, it seems to me, demands unity on this very point.

IN ANSWER TO PROFESSOR JODL.

PROF. FRIEDRICH JODL advances two points in which he cannot agree with the views presented in *The Ethical Problem*. First he criticises my polemical attitude towards Hedonism, and secondly he declares that Nature cannot be considered as a moral standard. Concerning the latter point, I have to say that the demeanor of Nature (if we use the poetical licence of personifying her) cannot be and I suppose never has been proposed as a model for imitation. Nature is neither moral nor immoral, but Nature and Nature's laws are that immutable power conformity to which makes man moral. In this sense alone can Nature be said to be the moral standard, and ethics must be grounded upon our knowledge of Nature.

What we say of Nature holds good also for the theological conception of that power in which we live and move and have our being. There is no pleading with God (Job 16, 21); no entering into judgment with him (Job 34, 23); no multiplying words against him (Job 34, 37). The apostle says: "O man, who art thou that repliest against God? Shall the thing formed say to him that formed it, Why hast thou made me thus?" In short God is neither moral nor immoral; he is the standard of morality. It would be a poetical licence to speak of God as being moral, for morality is obedience to his commands, or conformity to his immutable will.

Professor Jodl says:

"The whole history of morality is to me nothing but a growth of Nature out and beyond itself; an aspiration to replace natural laws by the laws of rational will."

It appears that Professor Jodl has a different conception of Nature from what we have. I see no possibility of replacing natural laws or growing beyond Nature. Says Shakespeare:

"Yet nature is made better by no mean,
But nature makes that mean; so, over that art,
Which, you say, adds to nature, is an art,
That nature makes. . . .
This is an art
Which does mend nature—change, rather; but
The art itself is nature!"—*Winter's Tale*.

Concerning our objections to Hedonism, Professor Jodl says:

"How we can hope to overcome the old orthodox conception of ethics without representing the new and scientific ethics as eudemonism, I do not know."

This passage corroborates my conviction that hedonism and utilitarianism were put forth in opposition to the old orthodox conception of ethics, which declares that the ethical motive in man, conscience or the sense of duty, is of supernatural origin. The orthodox as well as their antagonists believe that the pursuit of happiness alone is natural; the natural man seeks pleasure and shuns pain. The presence of higher motives, accordingly, is considered by the orthodox believer as a proof of supernaturalism, while his adversary feels constrained to deny their existence.

It appears to me that the old orthodox conception of ethics (religious ethics) contains a truth which the hedonistic ethics (irreligious ethics) does not contain. The old orthodox conception of ethics, although represented in mythological allegories, is nevertheless based upon the facts of life. It has grown naturally; and its main mistake is that it represents some natural facts the origin of which it did not understand, as supernatural interferences; it misinterprets facts; it has not as yet developed from the phase of a belief in magic into a scientific conception.

Hedonistic ethics, on the other hand, must appear as artificial. It represents ethics as eudemonology, i. e. the science of attaining the greatest possible maximum of pleasure over pain, and it goes on to explain that the peace of soul following the performance of duty is a satisfaction much greater than all the pleasures of the world. True, but it is this kind of explanation which appears artificial to me.

Brutus condemned his sons to death and had them executed, because he considered it as his duty. We may doubt whether it really was his duty, but he certainly did it because he considered it as his duty; and who will deny that it was a most painful duty which gave pleasure to nobody and contributed nothing to the general happiness of Rome; it only tended to preserve that spirit of Roman sternness which made the Romans fit not only to conquer but also to rule the world, and to evolve for the first time in history an in-

ternational code of laws and a standard of justice. The Romans suffered much from the impulse natural to them; and I am inclined to believe that they never attained a greater happiness than other nations. If happiness is the ultimate test of morality, Cyrene was superior in morality to Sparta, and Sybaris to Athens.

Can we say that the Spartans, or the Romans were prompted in their actions by a desire for pleasure, that sternness was a pleasure to them? I should say that we cannot. Is the fighting cock impelled to fight by a desire for pleasure, and does the pleasure of fighting really outweigh in his opinion the pains of his wounds and the fear of danger when confronted with superior enemies? It appears to me that in animals as well as in man there are many impulses the motives of which rise from the nature, from the character of the creature, which cannot be explained as a pursuit of happiness. The fighting cock must fight under given circumstances because it is his nature. Certain structures are in his brain that impel him to fight. Does the stone fall to the ground because it gives it pleasure, or doesn't it rather fall because it must fall in agreement to its nature? How often does it happen that a man follows an irresistible impulse, although he knows that it will give him pain. Thus it happens that men of good intentions commit evil actions, and rascals sometimes act morally, in spite of themselves; not at all with the desire to avoid pain or to gain pleasure, but simply because the impulse to act in this way lives in their soul. It is a part of their nature, and under given circumstances they cannot help letting that impulse pass into act, even though they know that they will have to regret the effects of the deed. It will in many persons take a long time and much exercise of will till this knowledge acquires sufficient strength as a motive for prohibiting actions which will be regretted.

Every science deals with a certain province of nature or it limits its inquiries to a special abstraction. Thus mechanics deals with motions. Purely mechanical motions do not even exist. The mechanical aspect of motions excludes many properties which are inseparably connected with the things in motion. But the method of abstraction is a limitation, indispensable to science; it is the method by which alone we can comprehend the world. Ethics, it appears to me is no less limited to a peculiar aspect and to a special province, than are for instance zoology, botany, or mathematics, geodesy, etc. Ethics deals with all those impulses of the soul which in the popular expression are comprised under the name of duty, conscience, the ought, or moral sense. Obedience to these impulses is sometimes pleasurable, sometimes painful; yet whether they are accompanied with pleasure or pain is of secondary importance in ethics. The pleasurable and painful elements in man's actions do not belong

to the abstraction of ethics. They need not and they cannot be excluded from ethics, but they are of secondary importance and do not constitute the properly moral element. We might just as well speak of colors when discussing mechanical laws. We may say that yellow gold will outweigh an equal mass of white silver. But the yellowness of gold and the whiteness of silver have nothing to do with the weight. Thus pleasure and pain are qualities which are inseparably connected with moral actions, and it is certainly advisable to consider their relation to the strength of motives. Yet to search in them for the standard of morality would be as wrong as to set up yellowness as a unit of weight.

The investigations of modern psychology, it appears to me, throw much light upon the mechanical apparatus of soul-activity. An impulse placed into the mind of a man by suggestion prompts to action with the same necessity as, for instance, a wound-up spring exercises a pressure and sets a clock in motion. For example a hypnotized subject receives the suggestion to stab one of the physicians present; a piece of card-board is given her instead of a dagger and she commits the deed with the imaginary weapon. The stabbed physician pretends to be dead, and the woman is asked why she committed the murder. "He was a bad man," she answered. "But is that a sufficient reason to kill a man?" the woman was asked. "In this case it is," she said, "for he attempted to assault me." The action is done because the impulse exists; the motives are often invented afterwards; and the attempt to explain all actions as intended to pursue happiness appears to me as such an after-invention. A scientific explanation should show how the different impulses, and especially how the ethical impulses, that which we have defined as superindividual motives, develop. If we are to define the feeling attending the performance of something that could not be avoided, not only as satisfaction but even as happiness, in that case only should we have to concede that all ethical aspirations are pursuits of happiness. The Buddhist monk who does not believe in personal immortality, and inflicts most cruel tortures upon himself to atone for the sin of existence would in that case have to be said to pursue happiness. Pursuit of happiness would then be identical with any kind of action.

If the happiness attained or attainable were to be considered as the standard of measurement for the morality of actions, we should have to call the preparation for a ball extremely moral. Likewise, if the utility of an act were to be considered as the standard of measurement, the invention of the sewing machine would as such be a moral act. I do not deny that the wish to spread joy and also the aspiration to make oneself useful are moral; but neither the happiness

nor the usefulness attainable by this or by that act constitutes the properly moral element. The properly moral element is an entirely different kind of abstraction. It consists of those motives or impulses to action which regulate conduct, not from the egotistic standpoint, but from the standpoint of a greater whole, to which the person who acts belongs.

Is there any doubt about progress being a law of the development of the human race? It can fairly be assumed that all the aspirations which serve the progress of the race, are to be considered as moral impulses. Nevertheless, it is very doubtful whether progress will bring more happiness. One thing is sure: Progress will bring more comforts, and together with an increase of comforts, it brings more wants. Life having more wants causes greater troubles in satisfying the wants. If there is any increase of happiness, there will certainly be a greater increase in sensitiveness to pain; and the condition of a savage who feels no need to cover his nakedness, is enviable in comparison to the wretchedness of a civilized man, if he fails somehow in his struggle for existence. If happiness is to be considered as the standard of measurement for morality, I doubt greatly whether it would not be more moral to keep humanity in a state of childhood and ignorant innocence. Pessimism indeed, as represented by Schopenhauer and his followers, considers the development of individual life as the original sin, as the initial *faux pas*, the first wrong step of the "will to live." Sin, according to Germany's neo-Buddhistic philosopher, is individual existence, and the meed of sin is all the evils of individual existence, pain, old age, and death, and the happiness aspired for is a mere illusion.

If happiness, or joy, or pleasure, were indeed the standard of morality, I am inclined to say, that it would be better if the All were a mere play of unfeeling forces, developing and dissolving again solar systems in their luminous grandeur without evolving feeling and thinking beings on the surface of planets. The problem in ethics, however, it appears to me, is not how to set up a standard of morality of our own in contradiction to the laws of nature, but how to conform to the laws of nature. Science leads to Monism, and Monism teaches us to consider ourselves as a part of nature. The standard of morality cannot be derived from man's likes or dislikes; it cannot be based upon the separateness, the individuality, of his existence. Ethics can rest only upon the recognition of natural laws. We must know how nature operates in the universe, how nature produces us, how she moulds us, and we must comprehend that all our individual actions are acts of nature.

If God is defined as the All in so far as it is a cosmos of orderly laws, we shall find that the old orthodox

morality contains more truth than might appear from the standpoint of an unbeliever. Hedonism, Utilitarianism, Eudemonism, or any other system that has arisen in opposition to the old orthodox ethics of the dogmatic religions, represent an important phase in the further evolution of ethical ideas, but for the mere sake of overcoming their adversary they discard together with the errors of supernaturalism, the valuable truth that is contained in the ethics of the old religions. The merits of these ethical systems of opposition should not be underrated; but it appears to me that they have not solved the problem. We must search for a solution of the ethical problem in a higher synthesis of the old ethics of orthodox religion, and the oppositional ethics of all the different happiness-theories. It is this higher synthesis which we have attempted to present in our solution of the Ethical Problem.

P. C.

NO DECALOGUE IN POLITICS.

A GRAVE and reverend senator, high priest in the Sanhedrim of his party, recently declared that the decalogue had no place in politics. In this rollicking maxim he proclaimed the brazen doctrine that in the warfare of American partyism the rules of ethics have been suspended "by unanimous consent." Arm in arm, the rival party potentates march along together, and keep step to the music of that sentiment. An ominous illustration of its pernicious power is presented in Illinois to-day. The legislature elect is almost evenly divided on party lines, the republicans having a trifling majority in the Senate, and the democrats a small majority in the House, but neither side feels confident of its ability to elect a United States senator. In this uncertainty the democrats thought it would be good politics to "unseat" a few republican members of the House, and thus obtain for the democratic candidate a majority on joint ballot. Accordingly, notice of contest was served on the members who were to be thrown out, and the patriotic scheme was much admired.

As soon as the notices were served, the republicans denounced this illegal and unconstitutional strategy, as they called it, but prudently concealed a few trump cards in their own sleeves, and these they did not show until the latest moment permitted by the rules of the play. On the very last day allowed by law, they filed notice of contest on four democrats elected to the State Senate, with an implied threat that if the democrats in the House attempt to play four stolen kings, the republicans in the Senate will play four stolen aces against them. In other words, if the democrats "unseat" republicans in the House, the republicans will unseat a corresponding number of democrats in the Senate, according to the military law of reprisals, where the general of one army having hanged a prisoner, the general of the opposite army hangs one also to balance the account. A leading republican journal in Chicago thus explains the situation, "The meaning of these contests is that every time a democratic majority in the House ousts a republican, a Republican Senate will exercise the *lex talionis* and oust a democrat." In this game of *lex talionis* the right of the threatened members to their seats is not thought worthy of consideration by the partisans of either side, because "the decalogue has no place in politics."

If every day in the year was a Fourth of July devoted to pyrotechnics in speech and gunpowder, we could not conceal from the world, nor from ourselves, the unhealthy condition of our government when the legislature, its most important branch, denies

justice on principle. Not only in the State legislatures, but also in Congress, the right to a contested seat is determined, not by the evidence, but according to the dictates of party necessity and the hunger of political clans. In the present Congress one party outnumbered the other just enough to organize the House and elect a Speaker, but not enough to constitute a "working majority." It therefore became necessary to "unseat" a few of the opposition members, in order that a quorum for the dispatch of business might safely be relied on. That all the contests were fairly decided according to the merits may be true, but the unpleasant feature in their trial is that the ayes and noes are alike tainted with suspicion when they divide by party lines on a simple question of evidence.

The only matter for decision in a contested election case is, which of the contestants was elected, not which of them ought to have been elected according to partisan opinion. If a horse or a house were the subject of dispute, the judgment would not be on party lines; but according to the very right of the matter as manifested by the proof. A jurymen would be dishonored should he render a verdict according to his political affinity with the plaintiff or defendant; but let him go to Congress, and he will give his verdict there according to such affinity; and what is worse, he is tacitly required by his constituents to do so. This immorality overflows politics, enters into business, and corrupts all the elements of our social constitution. If we may have two ethical codes, one for the Court House, and another for the State House, we may have two opposite religions, one for the Church and the other for the Shop; as indeed, some of us have.

Probably the most attenuated and refined ethical distinction known to casuistry is that which enables a man to occupy with an easy conscience a stolen seat in Congress, when at the same time he would scorn to wear a stolen overcoat; but the difference is due not to any keenness of moral perception, but to the objective consequence. The man who would steal the seat would steal the overcoat if he could do so with the same impunity.

A few years ago Mr. Black and Mr. White were opposing candidates for Congress in one of the Western States. Mr. White was elected, and duly counted out by the returning board, who gave the certificate of election to Mr. Black. On a contest it was shown that Mr. White had been defrauded by the sinister device of "throwing out" a couple of townships on some frivolous technicality, but the wrong was so manifest and palpable that the Committee on Elections, although of the same party faith as Mr. Black, promptly found that he was not elected, and that Mr. White was; yet with deliberate injustice they cheated him out of the seat, by withholding their finding from the House. They refused to make a report, and did not make it for two years, nor until that Congress was about to expire. On the last day of its existence, and about an hour before its final dissolution, they brought in their report, and gave Mr. White the seat which they had permitted a usurper to occupy for two years. The reason given for this act of political grand larceny was that their party majority in the House was so small that if they should seat Mr. White and unseat Mr. Black it would make a difference of two votes on a division, and really they could not spare Mr. Black until the last hour of that Congress.

The case above mentioned, which is a real one, with the exception of the names, shows that we have one code of ethics for public life and another for our private conduct. Mr. Black knew from the beginning that he was not elected and that Mr. White was, yet he held on to the seat for two years on the pitiful plea that he did not steal it himself, that the returning board stole it, and forced it upon him by a fraudulent certificate. Evidently he had no faith in his own plea, because had the returning board "held up" Mr. White, robbed him of his watch, and slipped it into Mr. Black's pocket, he would have scorned to keep it, and yet he appropriated property belonging to Mr. White which was of

greater value than a watch, a seat in the American Congress, nor did he surrender it until it was utterly worn out and useless. Mr. Black stood high in the community, and according to the ethics of his time he passed current among his neighbors as an honest man; but he was not an honest man, and the political system which offered him an opportunity to do wrong, and gave him not only immunity but credit for doing it, is radically defective and immoral.

The critic of any social wrong must expect to be confronted by the question, "What are you going to do about it? It's easy to pull down but not so easy to build up. Give us a remedy, not an ideal, abstract remedy, such as 'honesty,' for instance, but a suggestion of some real substantial act or deed, of legislation or agreement in which all parties can unite." This demand is not always reasonable, for in a case like the present it ought to be enough to expose a vicious practice and require that it shall cease; but if a remedy must be offered, let us consider the English plan. When the right to a seat in the British Parliament is contested, the matter is tried outside, before a judicial tribunal absolutely impartial, just as though it were a suit in replevin concerning a disputed horse. No matter what may be the party sympathies or the party necessities inside the house, the claimant of a seat there is absolutely certain to have the contest honestly decided according to the law and the evidence. No delay is permitted, for his claim is a privileged question, and in a few weeks at farthest the contest is at an end, the lawfully elected member sworn in, and the usurper turned out.

It is no objection to the plan, that by the Constitution of the United States each house of Congress is the judge of the election and qualification of its own members. This is the law of the British Constitution also, and in the exercise of that power, and in order that partisan decisions may be avoided, the House of Commons has provided for the trial of contested seats by a non-partisan court; the verdict of the court is adopted by the House as the very right of the matter, and there an end. M. M. TRUMBULL.

BOOK NOTICES.

The October number of the *Revue de Belgique* contains an article on the Ethical Societies of this country, by Prof. P. Hoffmann.

Shall the Bible be read in our Public Schools? is the title of a pamphlet by Dr. Richard B. Westbrook, the President of the American Secular Union. Its argument, which is comprised in nine sections, covers the whole ground of controversy and may be summarized as the want of common agreement as to the constitution, contents, and teaching of the Bible; the character and associations of its moral teaching and its valuelessness to attain the aim desired; the unlawfulness, under the secular principle of the Federal and State Constitutions of Bible reading in State Schools. (Philadelphia: J. B. Lippincott Co.)

The "Comité d'Etudes Morales" founded in Paris, November 4th, 1890, invites the co-operation of groups and federations of Freethinkers, Masonic Lodges, etc. Its programme includes the following topics: 1) Morality, Right, and Duty—Egoism and Altruism; 2) Scientific Authority—Liberty of Conscience—Observation—Reasoning; 3) Justice—Reciprocal Duties—Responsibility—The Rights of Man and Social Safeguard; 4) The Useful and the Just—Individual Interest and General Interest—Joint Responsibility; 5) Matter, Force, and Life—Humanity, Society, and the Family—Social Equality; 6) Education and Instruction—The True, the Good, and the Beautiful. The Committee proposes to collect from books and other sources precepts suitable for the education of children of both sexes, to be classified under the heads of science, wisdom, morality, and honor.

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MR. GRANT ALLEN'S MILLENNIUM.

BY JOHN GARDINER.

It is an indication of progress in the discussion of the "Woman Question," that the problem to be solved is no longer "Will women in the future differ from those of the present?" but rather, "In what respects will they differ?" The former question has been settled in the affirmative after years of dispute, and now the other occupies the field. It might be as well to let things take their course and help or regulate the progress of women just so much as might seem necessary at any given time, but that is not our nature. We must always be peering into the future and trying to find out something of our future destiny, and since the triumph of the theory of evolution, the dim forms and outlines that we can see have something more of definiteness to them than in times past. The biologists, as might be expected, are among the most prominent seers of the future of women, and it is to a vision put forth by one of these, Mr. Grant Allen, who has already written on the subject in the pages of the *Forum*, that I wish to draw attention. His theories are worth examination, both because they come from Mr. Grant Allen, and because of their very extraordinary nature.

In the May issue of the *Universal Review* of London appeared an essay by Mr. Allen on "The Girl of the Future." It is rather surprising, after some of Mr. Allen's utterances, to find that the girl of the future is to be exceedingly well educated. She is to be trained in "gymnastics, music, hygiene, propædæutics; in logic, mathematics, chemistry, physics; in astronomy, geology, biology, psychology; in history, sociology, politics, economics; in aesthetics, ethics, and the application of all these to her own functions;" she is to be taught "how to play at games for pure love of them," while her sense of fun and humor is to be simultaneously encouraged. Truly a most excellent and complete curriculum! It would now appear that Mr. Allen's former fulminations were aimed solely at the study of languages and some parts of mathematics, and at the methods of teaching which he supposes to prevail in Girton and Newnham and other girls' colleges. In this article he has some of his characteristic flings at the colleges; girls are "crammed with mathematics like Strasbourg geese with Indian meal"; they are

"stuffed with Sophocles and examined in the rudiments of faith and religion till they are as flat as pancakes and as dry as broomsticks." But could Mr. Allen be induced to visit Smith College, or Wellesley, or Bryn Mawr, or any one of half a dozen Western coeducational State universities; or would he even examine candidly the system and workings of Girton or Newnham, he would find that the girls in these institutions are receiving an education on lines not very different from those of the ideal for which he hopes.

But it is not with the details of this system of education that the article deals; it is with its effect upon the girl of the future. That effect is to be, first, emancipation from the established moral order, and then polyandry. The *Universal Review* is not widely read in this country, so it may be permissible to condense Mr. Allen's argument, though it loses much in the process.

"The question of questions for every modern State is—how are we to be recruited in future with the best possible citizens?" The present system of marriage is not favorable to this end, linking together as it does, good and bad, healthy and diseased, and allowing them to bring any and every kind of children into the world. Monogamy itself works against the end in view. If we have a fine horse or bull, we do not tie him down to one partner throughout life and rest content with the offspring of a single union; we try him freely round a large field of choice, and by mingling his qualities with the qualities of various mares and heifers we produce strains of diverse and well-mixed value. Just so it ought to be with men and women. We waste the good qualities of a great athlete or a great thinker by tying him down irrevocably to a single partner, and similarly with women. Now, when women are educated, they will be emancipated, among other things, from the old moral order. Maternity will become to them a religious act; it will be their sacred duty to bring into the world only the best, soundest, sanest children, and, consequently, they will freely choose who shall be the father of each of their children, and will not tie themselves for life to any one, no matter how worthy he may be.

Mr. W. T. Stead in the *Review of Reviews* characterises this theory as "detestable." The word is too strong, unless one is to regard the present prevailing

system of ethics as fixed and immutable. But the statement with which Mr. Stead begins his article is perfectly correct: "Mr. Allen looks at humanity from the point of view of the stud-groom." Mr. Allen himself would accept the expression, for the whole aim of his essay is to show that the production of men and women ought to be controlled by essentially the same principles that prevail on every well-regulated stock farm. And if men and women were animals in all respects similar to horses and cattle we might accept the principle of polygamy and polyandry without more dispute. But it so happens that they are not.

We may agree to Mr. Allen's statement of the problem which confronts the modern state, and to his estimate of its importance. We may admit that the system of marriage which permits parents to sell their daughters, girls to sell themselves for money or a title to old *roués* or young ones, which permits consumptives and syphilitics and lunatics to hand down their disease to generation after generation, that such a system is not perfectly adapted to the production of good citizens. But for all that we are not bound to accept Mr. Allen's conclusions. Granted that in the breeding of stock polygamy possesses important advantages over monogamy, may not and does not monogamy possess still more important advantages over polygamy in the matter of the production of good men and women.

These advantages, the possession of which has led to the survival and general prevalence of monogamy rather than polygamy or polyandry are two—Love and the Family. The brute lust of the lower animals and of our ancestors has undergone in the course of ages a wonderful transformation, and to-day most people recognize that love, the love of one man for one woman, of one woman for one man, is the greatest power in the world. Those who know it best often say least about it; the task of telling its glories may be left to the poet, but daily and hourly love more than anything else, helps and strengthens men and women in the weary struggle of life.

And of love Mr. Allen would deprive us, for love would be impossible in his ideal commonwealth, and in return for it he gives us what? An exaggerated altruism which subordinates everything else to the task of providing sound and sane citizens for the State. It is more than doubtful if Mr. Allen has any adequate conception of conjugal love at all. If he has, he thinks it of so little importance that its loss would not matter. He believes that men are in their nature polygamous, and that women would be polyandrous but for the subjection in which they have been kept. A superficial view of humanity is certainly apt to lead to the former conclusion, and at one time or another of their lives it is accepted as certain

by probably the majority of men, but to one who looks below the surface and compares the present with the past, a different state of things is visible. He sees that the tendency to polygamy is but a survival from the times of our brute and savage ancestors, like the useless muscles in our ears, only not so far on the way to disappearance, and that gradually, though slowly, we are outgrowing it. And he sees, further, that even within the diminishing ranks of those who practice polygamy in their youth, many, or even most, sooner or later marry, not for money or economy, or for the purpose of continuing their name in the world, but because they have at length experienced love. Love is not the same thing as lust, Mr. Allen to the contrary notwithstanding; it is impossible without passion, but it is higher than mere passion, and its very existence shows that it, rather than lust, has been selected by nature as the fittest kind of sexual emotion for civilized men.

Mr. Allen cites four instances of emancipated women who "showed themselves supremely contemptuous of man-made or slave-made ethics." They did, but they showed no tendency to polyandry, unless, possibly, in the case of George Sand. Mary Wollstonecraft, Mary Godwin, George Eliot, were all true wives, though they disbelieved in the priestly theory of marriage. But the instances of polyandry, on which Mr. Allen, apparently, most relies for support, are the negroes of Jamaica and the factory girls of Lancashire. He states that he has observed in these classes, that when a woman is capable of supporting a family on her own means or earnings, "marriage ceases to be the necessary rule for the sex and the bearing of illegitimate children is no longer an offense against the unwritten moral law of the community." Well, the negroes of Jamaica are among the most degraded in the West Indies, and though there are very many good men and women among Lancashire factory hands, they can hardly be reckoned in general as high examples of the human race; furthermore, they are not the best, but the worst individuals of these two classes of women who practice polyandry. We must protest against Mr. Allen's false logic when he concludes that, because beasts, and because low types of humanity do this and that, therefore much more will the highest types of men and women do the same thing. It would be just as rational to say that because Dr. Lumholtz has found that the black-fellows of Queensland have a taste for human flesh, therefore a plate of roast leg of man ought to be acceptable to the *habitué* of Delmonico's.

Absolutely nothing is said of the manner in which the children are to be reared when Mr. Allen's millennium shall have dawned. Presumably, however, if

the example of the Jamaica negroes and the Lancashire factory girls is to be followed, they are to be brought up by the mothers. But whether this is to be the case, or each father is to provide for his own children, or the State is to act as parent to all its citizens, our present ideal of the family will be entirely destroyed. And with the family will perish the virtues, and they are many, which originate in, or are fostered by family life, and the State will suffer by the loss of them. Fatherless and motherless families are not rare now; there must always be many of them; and it is notorious that the children of such families are very frequently among the worst citizens in the community. So far as we can judge, the abolition of the family would be a sure mark of the degeneracy of the race, a half-way house on the backward road to utter savagery. Our author must have as little belief in the efficiency of family training and the power of family affections as he has in love, to be able to contemplate calmly the possibility of a commonwealth without families.

As Mr. Allen points out, the recent discussions on marriage and divorce have familiarized people's minds with the idea of "free unions," or "free temporary relations." And he mentions two other tendencies which make, as he thinks, in the same direction, the growing movement toward (in Mr. Besant's phrase) the endowment of the daughter, and the tendency, which he regrets, for women to earn their own living and to lead an independent, bachelor life. But do these tendencies in reality make for the state of things which Mr. Allen desires? I doubt it.

Women who can support themselves in decent comfort, whether they be "endowed" by their parents with a sufficient income, or earn their own living, will be spared some of the temptations which most frequently lead to unhappy marriages—for instance, the desire to escape from a home in which the environment is uncongenial, and the desire to escape from surroundings of shabby-gentility or poverty to an atmosphere of moderate or great wealth. That is to say, the temptation to prostitution in the guise of marriage will be removed, and women will marry only for love. Then, again, in the good time coming, women are going to be educated, more or less on the lines which Mr. Allen lays down in his present essay, and their education—the physiology and biology especially—is going to teach them with what kind of men to fall in love, and what men and women have the moral right to become parents. And so there will be comparatively few unhappy marriages.

Mr. Allen laughs, and rightly, at the proposals to establish a system of "eugenics" by means of boards of examiners, and the result at which Sir George Campbell clumsily aims will be reached more effec-

tually, though indirectly, by the education of women. The girl of to-day, though she may sell herself to him, cannot love Mr. Quilp or Mr. Bultitude. The girl of the future will none the more, as a rule, be able to love a man with hereditary disease, a *roué*, a drunkard; one will be as repulsive to her as the other. When men are lovable in spite of weak or diseased frames, then marriages will still take place, but both parties will be aware of the grave responsibility they will incur should they bring children into the world.

The divorce laws of the future will be wide and liberal, but divorce will only be granted when the necessity for it has been clearly and indubitably shown, and it will rarely occur. Men and women will take pains in choosing their partners, and they will choose well and for life, for education will have taught them how to choose. But mistakes must happen occasionally, and then divorce will be sought and granted, for it will be recognized that often it is an act of greater justice to children as well as to parents to let a family be entirely broken up, than to endeavor to hold it together when it is permeated by the spirit of discord.

Mr. Allen has had at least two noteworthy predecessors in his line of thought; Plato and the founders of the Oneida community. He differs essentially from both, for he does not believe in any systematic, state-regulated system of "eugenics." He agrees with both in disbelieving in the power of conjugal love, and in regarding with equanimity the destruction of the family. Plato was excusable, for the Greeks had but little conception of what we understand by the family, and under the circumstances his scheme was an important one. But the Oneida fanatics and Mr. Allen must be bracketed together as entirely inexcusable, and as alike in at least one respect, that they glorify lust at the expense of love.

It may be that I am as much of a millenarian as is Mr. Allen. At the least my millennium is more in accordance with what we know of the past history of man, and of his tendencies for the future.

IN DEFENCE OF CIVILIZATION.

BY F. M. HOLLAND.

"And never a fact to perplex him
or bore him."—J. R. Lowell.

We are informed in No. 166 of *The Open Court*, that there ought to be a revolution, and that "It will be worth while to have our civilization ruined fifty times over." The writer justifies these threats by declaring that "The rich are rich because the poor are poor," that "our false manner of living" is plunging us into ruin, and that the poor and unfortunate have not been "ameliorated." Not the slightest evidence is offered for these startling assertions in an article five columns long; but they are urged upon us as if they were in-

fallible revelations, or self-evident truths. And so we are told in the *Twentieth Century*, for August 21st, that "It is no longer denied that the rich are growing richer and the poor are growing poorer every year ;" and again, that "Within a few years blood will flow in the streets of our cities." "Before long laborers . . . will be ready to fight. Then mob will follow mob, and revolution will finally burst forth from the womb of despair."

Henry George's *Progress and Poverty* promises at the outset to reveal "the cause that associates poverty with progress," and declares, again and again, in pages that have had hundreds of thousands of eager, trusting readers, that "The enormous increase in productive power, which has marked the present century, . . . has no tendency to extirpate poverty, or to lighten the burdens of those who toil." . . . "It simply widens the gulf between Dives and Lazarus." . . . "The tendency of what we call material progress is in no wise to improve the condition of the lowest class in the essentials of human happiness." . . . "Nay more, it is to still further depress the condition of the lowest class." . . . "Material progress, does not merely fail to relieve poverty ; it actually produces it." A follower of Henry George, who deserves our deepest respect for the power with which he has told the people how they are plundered by our tariff, has recently inquired in the *New Ideal*: "What is it which associates poverty with progress, and increases want with advancing wealth?" The gifted poet, William Morris, in his pamphlet on "True and False Society," declares that "Our civilization . . . is a failure," that there must be a "rebellion of open revolt . . . organized for a complete change in the basis of society," a necessary revolution," and that he does not "know of any thoughtful person" who believes that people generally are even contented under the present system.

We all know that complaints are very generally made, sometimes in mild and sometimes in sanguinary language, against what is called "cut-throat competition," individual ownership of land, private property of any sort, government, and other institutions which are not likely to be abolished peaceably. The speedy downfall of the second French Republic was brought about by the bloody attack made upon it by armed socialists ; and I need only refer to the recent anarchist tragedy in Chicago. In short, we are threatened with bloody insurrection, on account of the failure of our modern society and industrial civilization to diminish poverty and "improve the condition of the lowest class."

Now there is one thing which ought to be said very plainly to all who urge and repeat this dangerous charge against society and civilization, namely "PROVE IT." No one has either a legal or a moral right to

make charges against his neighbors that he cannot prove ; and the commandment, "Thou shalt not bear false witness," is good against all who bring up charges without evidence against society.

Some years ago, a farmer in Illinois, who was unpopular on account of his bad temper, had a violent quarrel with his hired man ; and the latter disappeared. The neighbors took it for granted that he had been murdered ; and a lynching party was about to avenge him, when it was found out that he was still alive in a city not far off. We all see that there ought to be some evidence of guilt before sentencing a single individual to death ; and is there no need of evidence before condemning all society to be punished by insurrections, which may cost hundreds of innocent lives ? The burden of proof rests upon the prophets of revolution. They are bound to prove the justice of their charges against society and civilization.

I do not doubt that these charges are made sincerely ; but I see no reason to believe that those who make them have taken proper pains to find out their truth. No one denies that the poor suffer pitifully ; and no one denies that our farms are infested with weeds ; but this does not prove that our system of agriculture is making weeds more numerous and pernicious than ever before. So the mere fact that poverty still exists, does not justify the charge that it is increased, or in any way made more painful, by our present system of labor and government. To say that the poor are growing poorer, that the condition of the lowest class is becoming constantly more depressed, and that want increases with advancing wealth, is to volunteer statements which ought to be supported by a great array of historical and statistical facts. But I have yet to learn that any adequate attempt has ever been made to present any facts of the sort on this side.

Henry George does say : "As the result of much investigation, Hallam says he is convinced that the wages of manual labor were greater in amount in England during the middle ages than they are now." Strictly speaking, Hallam is not a very good authority as to the state of things "now" ; for he died in January, 1859, at least twenty years before *Progress and Poverty* was published. Precisely when and where Hallam did make this statement was not mentioned by Mr. George. So far as I can find out it was in his book on the Middle Ages, which was published more than seventy years ago. What should we think of a man who should publish a book this winter, declaring republicanism a failure, but giving no better evidence than the assertion, "France is still contented under the despotism of Charles X?" The improvement in French politics, since the days of Bourbon supremacy, is not so great as that which took place in the condition of the working classes in England, between the

time when Hallam said what he did and the time when Henry George quoted it as still true.

My last statement is supported by many facts. Hallam wrote during a period of low wages and artificially high prices, which lasted throughout the century until the abolition of protection in 1846. Official returns, given in the "Encyclopædia Britannica," "Whitaker's Almanack," and Lecky's "History of England," show that the proportion of pauperism to population was nearly twice as great in 1846 as in 1876, and more than four times as great in 1803 as in 1888, in England. The actual number of vagrants, now arrested in London annually, is no greater than it was sixty years ago; but the population of England has doubled. Wages, meantime, have increased fifty per cent. for each workman on the average, while prices have fallen another fifty, showing that the laborer is more than twice as well off.

Another set of statistics show that the annual import of tea and sugar in Great Britain, in proportion to the number of inhabitants, trebled between 1840 and 1880, while that of cheese wheat and flour, became five times as great, that of butter seven times, and that of bacon and ham more than a hundred and fifty times. Some allowance may be made in the last case for decrease in domestic production; but there is no such difficulty in the case of tea and sugar, and very little in that of cheese and butter. England is much better supplied than she was fifty years ago with bread, butter, cheese, ham, eggs, tea, sugar, and other common articles of food. The rich man does not eat more of them than before, but less; for he has a greater variety before him. The increase in importation is due to the great increase of consumption among the poor, who now use as daily necessities of life what formerly were almost unattainable luxuries.

Then again the great improvement which has been made in draining, paving, lighting, and cleaning the streets in all civilized lands, has plainly been of most benefit to the lowest class; and these latter have gained much more than the rich from the multiplication and amelioration of hospitals and asylums of every sort. Even the poorest are now able to get such medical attendance as could formerly be obtained only by the rich. What has been said of the improvement in the condition of the poor during the present century, may be made plainer by referring to the times when only princes could have glass windows and tumblers, white bread, stoves and chimneys, lamps and candles, carpets, cotton clothing and bedding, books, clocks, or newspapers. It would be very difficult to make out a list of inventions and discoveries which have not benefited the poor even more than the wealthy. The fact is that all the members of society are bound so

closely together, that it is impossible to increase the comfort of any class without in some measure increasing that of all the rest. Even the slave was benefited by the prosperity and injured by the adversity of his master; and it ought always to be remembered that there are no slaves any longer in civilized lands. No one tries to prevent any class from getting the full benefit of every increase in the general prosperity. On the contrary, great efforts are being made to assist those who enjoy the smallest amount of happiness to increase it; and it cannot be that these efforts are altogether in vain. The plain fact that a large part of our people is constantly improving its condition, proves that we are all advancing continually.

Enough has, I hope, been said to show how little there is of self-evident truth in such assertions as that the poor are growing poorer in the essentials of human happiness, that industrial progress increases and intensifies poverty, and that modern civilization is a failure. Those who make complaints of this nature a pretext for threats of bloody revolution may fairly be challenged to prove that such an insurrection would be any more justifiable and beneficent than the revolts of our Indians against the government which has fed, clothed, and armed them, or the ambuscade of Italian mountaineers to shoot the physician who has come to cure their wives and children of cholera, but who is accused of having introduced the disease by witchcraft.

THE EXPERIMENTAL METHOD APPLIED TO PERSONALITY.*

BY TH. RIBOT.

In order to lay hold of the real concrete personality, and not a mere abstraction that takes its place, it is not necessary to withdraw within our consciousness, with closed eyes, and obstinately to question it; on the contrary, we need to keep our eyes wide open, and observe. The child, the peasant, the workingman, the millions of people that walk in the streets and in the fields, who never in their lives have heard anything about Fichte, about Maine de Biran, who never have read dissertations upon the ego and the non-ego, or even a line of psychology—one and all of them have their definite personality and each instant affirm it instinctively. Ever since that long-forgotten epoch when their ego was constituted, that is, since their ego was formed as a coherent group in the midst of the processes assailing it,—this group maintains itself constantly while continually modifying itself. This coherent group is composed for the greater part of states and acts, almost automatic, that constitute in each the feeling of his body

* Translated from the French (*Divisez de Personnalité* Chap. II. 1.) b 774.

and the routine of life, and that serve as a support for all the rest, yet any alteration of which, even a short and partial one, is immediately felt. In a great measure also it is composed of an aggregate of sensations, images, and ideas representing the usual surroundings amidst which we live and move, together with the recollections that are connected with them. All this represents organised states solidly connected among themselves, reciprocally supporting each other, and forming a bodily whole. We verify now the fact, without seeking the cause of it. All that is new or unusual, any change in the state of the body or of its surroundings, is adopted without hesitation and classed by an instinctive act, either as making a part of the personality or as being strange to it. This operation is performed every moment, not through any clear and explicit judgment, but through an unconscious and far deeper logic. If we have to characterize by a definite word this natural, spontaneous and real form of personality, I should call it a *habit*, for it cannot be anything else, being, as we maintain, only the expression of an organism. If the reader instead of observing himself will rather proceed objectively, that is, observe and interpret by the aid of the data of his own consciousness the condition of those who have never reflected on their personality, (and this is the vast majority of the human species,) he will find that the preceding thesis is correct, and that real personality affirms itself not by reflection but by acts.

Let us now examine what is called factitious or artificial personality. When the psychologist through internal observation tries, as it were, to comprehend himself, he attempts an impossibility. At the moment he assumes the task in question, either he will adhere to the present, and then hardly advances at all; or in extending his reflection toward the past, he affirms himself to be the same as he was one year or ten years ago; in either case he only expresses in a more learned and laborious manner what any peasant knows as well as he does. Through inward observation he can only apprehend passing phenomena; and I am not aware that any reply has been given to the following just remarks of Hume: "For my part, when I enter most intimately into what I call *myself*, I always stumble on some particular perception* or other of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without a perception, and never can observe anything but the perception. If anyone, upon serious and unprejudiced reflection, thinks he has a different notion of himself, I must confess I can reason no longer with him. All I can allow him is, that he may be in the right as well as I, and that we

are essentially different in this particular. He may, perhaps, perceive something simple and continued, which he calls himself, though I am certain there is no such principle in me."* Since Hume, it has been said: "Through effort and resistance we feel ourselves cause." This is very well; and all schools more or less agree, that through this the ego is distinguished from the non-ego; but this feeling of effort none the less remains a simple state of consciousness like others, the feeling of muscular energy displayed in order to produce any given act.

To seek through analysis to comprehend a synthetic whole like the personality, or through an intuition of consciousness that scarcely lasts a few seconds, to encompass such a complex thing as the ego, is to attempt a problem, the data of which are contradictory. So, as a fact, psychologists have taken another ground. They have considered the states of consciousness as accessories, and the bond which unites them as the essential element, and it is this mysterious *underlying something* that under the names of unity, identity, and continuity, has become the true ego. It is clear, however, that we have nothing here but an abstraction, or more precisely, a scheme. For the real personality there is substituted the *idea of personality*, which is altogether another thing. This idea of personality is, like all general terms, formed in the same manner as sensibility, will, etc.; but it does not resemble the real personality more than the plan of a city resembles the city itself. And as in cases of aberration of personality, which have led us to the present remarks, one single idea has been substituted for a plexus, constituting an imaginary and a diminished personality; in the same manner a fixed scheme of personality has been substituted by psychologists for concrete personality, and upon this framework, almost devoid of contents, they reason, induce, deduce, and dogmatize. It is clear, however, that this comparison is only done by way of *mutatis mutandis* and with many restrictions, which the reader himself will discover. There are still many other observations that could be made, but I am not engaged here on a strictly critical work.

In short, to reflect upon our ego, is to assume an artificial position, which changes the nature of the ego; it is merely to substitute an abstract representation for a reality. The true *ego* is the one that feels, thinks, acts, without making of itself an object of vision, for it is a subject by nature and by definition, and in order to become an object, it has to undergo a reduction, a kind of adaptation to the optics of the mind which transform and mutilate it.

[TO BE CONCLUDED.]

* In Hume's language, "perception" corresponds almost to what we now call state of consciousness.

CORRESPONDENCE.

POSITIVE IDEALISM.

To the Editor of The Open Court :—

I HAVE read with interest Mr. W. J. Gill's letter, in *The Open Court* for 28th November, regarding my article "Positive Idealism," in No. 161. I reply with much pleasure.

I am not quite certain that I rightly understand Mr. Gill. His own philosophical position does not clearly appear on the surface of his letter. Surely he does not imagine that my article—"Positive Idealism"—was written from the editorial standpoint of *The Open Court*, or that I endeavor to reconcile "Psychological" Idealism with Dr. Carus's views? My paper was wholly an independent one in the interests of *Hylo- or Positive- (not Psychological) Idealism*, as excoited by my friend Dr. Lewins. Merely "Psychological" Idealism could never be that either of Dr. Lewins or of myself, if for this reason alone that "all psychological idealisms"—to use Mr. Gill's own words—"make the known and knowable world of sense purely subjective, an evolution from 'and in the subject, though this evolution is supposed to be aided by 'an inconceivable something from beyond this known sense world.' The words which I italicise reveal a Fichtean leaning, with which Hylo- or Positive-Idealism has nothing to do. As to Positive-Idealism then, I shall be very happy to give any further explanation which Mr. Gill may desire, but as a (purely) Psychological Idealist I have none to offer, for the simple reason that I do not belong to that persuasion. My Idealism is as much Physiological as Psychological, because it is "positive," takes account of things as they are and not only as they seem to be—the "thing" of empirical science resolving into the "think" of metemprics and *vice versa*.

I can however guess at Mr. Gill's dilemma. He is surprised at the logical result of the projection of the subjective as to include the objective. He finds that it lands in the all inclusive declaration "*l'univers c'est moi*." Unquestionably Positive Idealism,—Solipsism—comes to this in the end. Half-hearted, halting, psychological Idealisms—such as those of the late Prof. J. H. Green of Oxford, and the rest of the Neo-Kantians, try to shun this result. They do everything they can to evade the supreme logical conclusion (without which there can be no Monism) 'I am the All' by substituting, on Green's part, an "Eternal or Infinite Consciousness" and, on M. Renouvier's part, foreign centres of representation—the combined judgments of other Egos—in which, we are told, the true external world resides. In passing I may perhaps observe that, to my mind, the ultimate philosophical position of *The Open Court* Monism lies as close to that of M. Renouvier as to any other. Much nearer, I think than to that of Hylo-Idealism. And I am confirmed in this opinion by Dr. Carus's editorial note to Mr. Gill's letter in which he seems to regard Objectivity and Subjectivity as vital and yet, somehow as not vital—"The difficulty," he says, "is to draw a line of demarcation between 'subjectivity and objectivity' and yet he admits, a few lines lower down that "he is aware of the fact that neither subjectivity nor objectivity exist by themselves." Now where subject and object exist at all there can be no Monism.

The chief interest of Neo-Kantian speculation, from a Hylo-Ideal standpoint, lies in the prominence assigned to Relation. This Relation has met with the keenest criticism mainly from the surviving Scottish Realists. Professor Veitch, of Glasgow University, in reviewing Prof. J. H. Green's works, scouts the idea that Relation can ever be anything of itself,—regards it as a thing that can only exist where there are at least two terms. But really the highest flood mark reached by the Neo-Kantians is just this, their affirmation that the Relation is everything—the Term nothing. So-called terms, the all in all of the objectivist, turn out to be but

counters, points with position, but without magnitude. I find in the diagrammatic representation of color alluded to in a recent issue of *The Open Court* an inkling of this Supremacy of Relation.

With the kind permission of the Editor I trust in a future article more fully to dwell upon the question of Relation as All and Everything. The limits of this letter forbid me to add more, and I am also under medical interdict for a few weeks as to literary work.

Cordially yours,

GEORGE M. MCCRIE.

BOOK REVIEWS.

A LOOK UPWARD. By *Suzie C. Clark*. Boston: Lee & Shepard; New York: Charles T. Dillingham; Chicago: A. C. McClurg & Co., 1891.

Here we have proclaimed the "gospel of health, of harmony, and perfect wholeness," which fitly begins with a discourse on the "Glad Tidings," and ends with "Emancipation." Its teaching is the power of mind, or as the votaries of "Spiritual Science" prefer to call it spirit, to "heal" the body. This doctrine, not being physical, is called metaphysical (healing), and they who attain to the power spoken of are called "healers." "Healing," says the authoress, "consists in the discovery that there is nothing to heal, that we are always well in spirit, in reality." □

A BRIEF EXPOSITION OF THE PRINCIPLES OF THE NEW DISPENSATION. By *Joy Kitten Sen*, M. A.

THE NEW BRAHMINIC REVELATION.

THE UPANISHAT-SAR; OR, ESSENCE OF THE UPANISHATS. Calcutta, Bidhan Press, 1882.

The New Dispensation is the outcome of the Brahmo Somaj, or "worshipping assembly," founded by Debendra Nath Tagore to carry into effect the religious reform originated by Rajah Ram Mohun Roy towards the beginning of this century. It is interesting as showing the effect produced by Christianity over the minds of the most intellectual Hindus. Its fundamental teaching is the universality of the presence of the Divine Spirit, of which it claims to be pre-eminently the Dispensation and which becomes incarnate not merely in every great religious reformer but, to some extent, in every man who lives in accordance with its dictates. If the members of the New Dispensation remain true to themselves and to their principles there is probably a great future in store for their society, which is as much the result of a social as of a religious movement. It may be remembered that the original Upanishads had great influence over Schopenhauer.

A GUIDE TO THE LITERATURE OF ÆSTHETICS. By *Charles Miles Gayley* and *Fred. Newton Scott*, Ph. D. University of California. Library Bulletin, Berkeley, 1890.

The authors apologise for the incompleteness of the present *Guide*, which forms a Supplement to the Report of the Secretary of the Board of Regents, University of California, on the ground that it is mainly a list of the books in two libraries. Most of the works cited, however, have been found useful by the College classes of one or other of the compilers; and to add to the value of the compilation the most important subject matter has been indicated by definite references to volume and page. We learn from the Preface that this is only the first of a series of bibliographies designed to cover a considerable portion of the field of æsthetic inquiry, and that in the succeeding handbooks, "special topics of æsthetic criticism" will be minutely analyzed, and references bearing upon them, collected from available sources will be added. A bibliography dealing with Literary Criticism has already been prepared for press. □

THE MONIST.

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THE EXPERIMENTAL METHOD APPLIED TO PERSONALITY.*

BY TH. RIBOT.

II.

UP to this point we have treated the question from its negative side. To what positive hypothesis as to the nature of the personality are we led by a consideration of morbid cases? Let us first eliminate the hypothesis of a transcendental entity, incompatible with pathology, and which, besides, explains nothing.

Let us set aside, moreover, the hypothesis which makes of the ego "a bundle of sensations," or of states of consciousness, as is frequently repeated after Hume. This is to be influenced by appearances, to take a group of signs for a real thing, or more precisely, to take effects for their cause. And again, if, as we maintain, consciousness is only an indicatory phenomenon, it cannot be a constitutive state.

We must advance still further, to that consensus of the organism, namely, of which the conscious ego is only the psychological expression. Has this hypothesis more solidity than the other two? Objectively, as well as subjectively, the characteristic trait of personality is that continuity in time, that permanence which we call identity. This has been denied to the organism, upon the strength of arguments too well known to need repeating here; but it is strange that it should not have been perceived, that all arguments pleaded in favor of a transcendental principle are really applicable to the organism, and that all reasons that can be advanced against the organism are applicable to a transcendental principle. The remark that every superior organism is one in its complexity is as old, at least, as the Hippocratic writings, and since Bichat no one attributes this unity to a mysterious vital principle; yet certain people make a great stir about this whirlwind or continuous molecular renovation which constitutes life, and ask, "Where is the identity?" As a matter of fact, however, everybody believes in this identity of the organism and affirms it. But, identity is not immobility. If, as some scientists think, life resides less in the chemical substance of the protoplasm than in the movements with which the particles of this substance are animated, identity would

be a "combination of movements" or a "form of movement," and this continuous molecular renovation itself would be subordinated to conditions more profound. Without dilating upon the subject, it must be evident to any unprejudiced mind that the organism has its identity. And from this point, what simpler or more natural hypothesis than that of perceiving in conscious identity the internal manifestation of the external identity which is in the organism? "If any one chooses to assure me that not a single particle of my body is what it was thirty years ago, and that its form has entirely changed since then; that it is absurd, therefore, to speak of its identity; and that it is absolutely necessary to suppose it to be inhabited by an immaterial entity which holds fast the personal identity amidst the shifting changes and chances of structure:—I answer him that other people who have known me from my youth upwards, but have not my self-conscious certainty of identity, are, nevertheless, as much convinced of it as I am, and would be equally sure of it even if, deeming me the greatest liar in the world, they did not believe a word of my subjective testimony; that they are equally convinced of the personal identity of their dogs and horses whose self-conscious testimony goes for nothing in the matter; and lastly, that admitting an immaterial substance in me, it must be admitted to have gone through so many changes, that I am not sure the least immaterial particle of it is what it was thirty years ago; that with the best intention in the world, therefore, I see not the least need of, nor get the least benefit from, the assumed and seemingly superfluous entity."*

It is, however, upon this physical basis of the organism, that rests, according to our thesis, what is called the unity of the ego, that is to say, the solidarity which connects the states of consciousness. The unity of the ego is that of a complexus, and it is only through a metaphysical illusion that the ideal and fictitious unity of the mathematical point has been attributed to it. It does not consist in the act of a supposed simple "essence," but in a co-ordination of the nerve-centres, which, themselves, represent a co-ordination of the functions of the organism. Undoubtedly we are here within the sphere of hypothesis, but at least, it is not of a supernatural character.

* Translated from the French (*Diseases of Personality* Chap. II. 1.) by

Let us take man in the foetal state, before the birth of any psychic life, leaving aside any hereditary inclinations, already impressed upon him in any manner whatever, and which, at a subsequent time, will manifest themselves. At some period of the foetal state, at least during the last few weeks of it, some kind of sense of the body must have been produced, consisting in a vague feeling of well-being or discomfort. No matter how confused we may suppose it to be, it implies certain modifications in the nerve-centres, as far as compatible with their rudimentary state. When to these simple, vital organic sensations there are added sensations from an external cause (objective or not) they also necessarily produce a modification in the nerve-centres. But they will not be inscribed upon a *tabula rasa*; the web of the psychic life has already been woven, and this web is the general sensibility, the vital feeling, which, vague as it may be at this period, definitively constitutes almost the whole sum of consciousness. The bond of the states of consciousness among themselves now reveals its origin. The first sensation (if there be one in an isolated state) does not come unexpectedly, like an aerolite in a desert; at its first entrance it is connected with others, with those states that constitute the sense of body, and which are simply the psychic expression of the organism. Translated into physiological terms, this means that the modifications of the nervous system that represent materially the sensations and desires which follow the first elements of the higher psychic life, attach themselves to the previous modifications that are the material representatives of the vital and organic sensations; and by this means there are established relations between these nervous elements; so that from the very outset the complex unity of the ego has its conditions of existence in this general consciousness of the organism, which, though so frequently overlooked, serves as the support of all the rest. Thus, finally, upon the unity of the organism everything depends, and when passing also from the embryonic state, the psychic life is formed, the mind may be compared to some gorgeous piece of tapestry, in which the warp has completely disappeared, at one place beneath a faint design, at another beneath a thick embroidery in high relief; the psychologist who restricts himself to internal observation, perceives only the patterns and embroidery and is lost in conjectures and guesses as to what lies hidden beneath; if he would but consent to change his position and to look at it from behind, he would save himself many useless inductions, and would know more about it.

* * *

We might discuss the same thesis under the form of a criticism of Hume. The ego is not, as he maintained, a mere bundle of perceptions. Without inter-

posing the teaching of physiology but confining ourselves to ideological analysis, we observe a serious omission—that of the *relations* between the primitive states. A relation is an element of a vague nature, difficult to determine, because it does not exist by itself. It is nevertheless, something more than and different from the two states by which it is limited. In Herbert Spencer's *Principles of Psychology* there is an ingenious study (which has been too little noticed) of these elements of psychic life, with certain hypotheses regarding their material conditions. Prof. W. James has quite recently treated of this question.* He compares the irregular course of our consciousness to the transit of a bird that alternately flies and perches. The resting-places are occupied by relatively stable sensations and images; the places passed in flight are represented by thoughts of relations between the points of rest: the latter—the “transitive portions”—are almost always forgotten. It seems to us that this is another form of our thesis, that of the continuity of the psychic phenomena, by virtue of a deep, hidden *substratum*, which must be sought in the organism. In truth, it would be a very precarious personality that had no other basis than consciousness, and this hypothesis is defective in the face of even the simplest facts; as, for example, to explain how after six or eight hours of profound sleep, I have no hesitation in recognizing my own identity. To place the essence of our personality in a mode of existence (consciousness) which vanishes during almost one third of our life is a singular solution.

We, accordingly, maintain here, as we have elsewhere in regard to memory, that we must not confound individuality in itself, as it actually exists in the nature of things, with individuality as it exists for itself, by virtue of consciousness (personality). The organic memory is the basis of all the highest forms of memory, which are only the products of its perfection. The organic individuality is the basis of all the highest forms of personality, which are only the products of its perfection. I shall repeat of personality as of memory, that consciousness completes and perfects it, but does not constitute it.

Although,—in order not to prolong these already protracted considerations,—I have strictly refrained from all digression, from criticism of adverse doctrines, and from the exposition of points of detail, I must, incidentally, point out a problem which naturally presents itself. There has been a great deal of discussion as to whether the consciousness of our personal identity rests on memory or *vice versa*. One says: It is evident that without memory I should only be a present existence incessantly renovated, which does

* Herbert Spencer, *Principles of Psychology*, Vol. 1, § 65. Prof. James in *Mind*, Jan. 1883, p. 1, and following. See also Huxley's *Hume*.

away with all, even the faintest possibility of identity. The other says: It is evident that without a feeling of identity that connects them reciprocally, and stamps upon them my own mark, my recollections are no longer my own; they are extraneous events. So then, is it the memory that produces the feeling of identity, or the feeling of identity that constitutes the memory? I answer: neither the one nor the other; both are effects, the cause of which must be sought in the organism; for, on the one hand, its objective identity reveals itself by that subjective condition which we call the feeling of personal identity; and, on the other hand, in it are registered the organic conditions of our recollections, and in it is to be found the basis of our conscious memory. The feeling of personal identity and the memory in the psychological sense, are, accordingly, effects of which neither one can be the cause of the other. Their common origin is in the organism, in which identity and organic registration (i. e., memory) are one. Here we encounter one of those incorrectly formulated problems, that frequently occur in connection with the hypothesis of a "consciousness-entity."

THE MIXING UP OF THINGS.

BY MRS. SUSAN CHANNING.

"It is the mixing up of things which is the great Bad". George Eliot in this phrase seems to us to have stated what is false *in toto*, since, as every well educated person knows, it is the mixing up of things which is the great Good. We must have the privative darkness to know light. All consciousness depends upon the mixing up of things. A constant impression on the mind is the same as a blank. We are unconscious of the pressure of the air, and of the earth's movement, because they are unremitting and uniform. It is the change from one thing to another that awakens our sensibilities. A uniform condition is devoid of pleasure. The easiest posture after a time becomes irksome.

It was once thought a sign of exquisite taste to use one and the same material for walls, furniture, and hangings. This notion is now obsolete, for as uniformity of sensation produces no ideas, neither does uniformity of material produce beauty.

Beauty is the intermingling of things different and various into an harmonious and agreeable whole. This is true whether the materials be ideas, colors, or men and women.

In *The Open Court*, Nos. 156 and 158, Messrs. Rood and Wake, in their discussion "Away with Ogres and Fairies," touched on this subject. Mr. Rood objected to the mixing up of things, the unreal with the real. Mr. Wake allowed Ogres and Fairies a share in the education of a child. John Stuart Mill is the best

example we can recall of the utilitarian method of education. From the beginning he was taught "the truly true," and, as a consequence, at fourteen he had the acquirements of a man of twenty-five, and in the house of the great Bentham he took part in the discussions and felt quite at his ease. This apparently unnatural development of his mind in no way retarded his subsequent intellectual progress. As Prof. Minto says of Mill in the *Encyclopædia Britannica*, "No calculus can integrate the pulses of knowledge and thought that he has made to vibrate in the minds of his generation. He quickened thought upon every problem that he touched."

But from one good example it is not safe to deduce a principle. We recognise with Mr. Rood, that Ogres and Fairies are allowed too prominent a place in the early education of most children. Still, we believe that as Nature never makes a complete break with her past, neither should we in our educational methods.

There is a natural order of progress by which some things must precede others in the human mind. Myths and fairy-tales belong to the childhood of the race, therefore it seems natural that they should find a place in child-life. Comte maintains that the education of an individual to be rightly conducted must have a certain correspondence with the evolution of the race.

The old Roman and the Puritan sacrificed everything to the useful; they demanded that a child should employ every hour of his brief childhood and youth in storing up facts and preparing to be a good citizen and church member; the useful was their God, and in due time its offspring Mammon came to reign in its stead; culture which refines life, and art which ennobles luxury were neglected; they were so engaged in worshipping the golden calf and in securing the salvation of their souls in the next world, that they would allow no soul in this in the shape of art or literature. Hence we find the Italian and Puritan deficient in the passion of the heart. They have acuteness and quickness of perception and excel in irony and story telling. The Yankee in invention beats the world, and invention has done as much as science and poetry to civilize the world; but the inventions of America have been in the domain of utility, while in the higher branches of invention such as the telescope and musical instruments which carry us into the higher realms of thought and feeling we are notably deficient.

It is plain then that the useful can take care of itself, but the beautiful must be encouraged. The imagination and the sensibilities need to be cultivated as much as the understanding.

In an ever-changing world we must ever change our ways and methods, although the fundamental laws upon which our actions and plans rest, remain im-

mutable; for if anything could stand still, it would, as Emerson says, be crushed and dissipated by the torrent it resisted; and if it were a mind it would be crazed, as insane persons are those who hold fast to one thought, and do not flow with the course of nature.

In educating the young the example of the Egyptian cabinet-maker should be followed. As Dr. Von Falke in *Art in the House* expresses it:

"No one can study an Egyptian chair in the British Museum without being convinced that the workman who made it not only knew the peculiar properties of its wood, but also respected them, and thus constructed an object which, unless accidentally destroyed, would last for ages without splitting or falling to pieces. Knowing that wood would warp in drying, that dampness would affect it, and that its tendencies were to split and twist, he treated it so as to render its natural defects as harmless as possible. Instead of making his chair out of green wood, forcibly bent into abnormal curves, and combining as many units as possible in it, he took the wood as Nature had made it, seasoned it thoroughly, and used as few pieces as possible; simple in shape, construction, and decoration, it was, when finished, durable and useful as well as pleasing in effect."

Thus should a child's natural endowments be recognized and treated if we seek the best results.

The Greek and the Roman were brothers, yet how different their intellectual tastes and development; the Greek when he prayed, raised his eyes to heaven, the Roman veiled his head. The one contemplated and the other reflected. To Greek contemplation, love of beauty, and individual freedom, we owe a world of poetry and art, the like of which the world has not again to show.

To Roman reflection we owe the foundation of our legal system and laws. The Romans were the first people who obliged plaintiff and defendant to explain and embody in due and binding form the grounds of both demand and objection, and constructed the machinery to effect that end. We can therefore say with Mommsen, that to commend the Greek is not to condemn the Roman; for as we allow the oak to hold its own beside the rose, so we can comprehend the truth that the distinctive excellence of these two noblest organizations which antiquity has produced, have a necessary connection with their respective defects, and that in education the blending of the ideal and the practical produces the best results. History has shown that a people without a national epos is without great memories, incapable of high culture or political development, and that they never take a place among the leading races of the world, and that those that have occupied such a place have had their fictions

brimful of wondrous and fanciful creations. And this seems equally true of the individual, for a youth without ideals means a manhood without virtue.

The conditions that will increase the brain product of one man or one child will utterly destroy that of another.

Madame de Staël could find no food for her genius but in her beloved world, Paris. She said she preferred to live in its gutters than be in exile with the homage of whole continents at her feet. Wordsworth liked to dwell near mountains and lakes. Thoreau, in listening to the croaking of frogs in muddy ponds and every creeping and crawling thing, wrote his best; the face of man with his axe overthrew his rational mind. Mrs. Shelly in her preface to an edition of her husband's poems, writes: "Shelley composed best in listening to the carolling of birds, aloft in the azure sky of Italy, or marking the clouds as they sped across the heavens, while he floated in his boat on the Thames."

We all might say to each person who should ask us the best method of mixing up things in a child's education, or in life, what Socrates replied to Xenophon when asked to tell him a good that was always a good. "If you ask me what is good for an inflammation in the eye, or what is good for a fever, I can tell you, but, a good that is always a good, I know none such."

CURRENT TOPICS.

SOME time ago, a writer in the *North American Review* propounded this interesting question, "Are we a nation of rascals?" He maintained the affirmative side of it with provoking success, and he may now devote himself to the next conundrum on the programme, Are we a nation of mammonites and toadies? Do we acknowledge God because he is patronised by a motto on the silver dollar? Or is the dollar itself the God of the motto? Must Jenkins be forever the presiding genius of the American press, crowding out of its columns matter of "great pith and moment" to make room for a description of Mrs. Ormolu's gown, and Miss McFlimsey's gloves? Not at the World's Fair, except in its gate-money features, but at Vanity Fair, must we look to see "the very age and spirit of the time, his form and pressure."

I was led into those reflections by reading in the morning papers, their tinsel and bespangled stories of the holiday festivities in Chicago, and I wonder how Jenkins managed to learn so much about gowns, and their miraculous trimmings in French, or whatever the language is. A glass of beer in the kitchen was enough to stimulate his mental pen to a description of Mrs. Carnelian's "gown of black velvet trimmed with point lace and diamond ornaments," but nothing less than the bribe of a glass of wine could induce him to humiliate Mrs. Carnelian for the gratification of Mrs. Amethyst Ruby, by proclaiming to "Society" that Mrs. Ruby wore "an imported black velvet gown en traine, trimmed with lace and jewels." The inference to be drawn from this invidious description is that Mrs. Carnelian's black velvet gown was not "imported," that it was a common American affair, made perhaps by a dressmaker instead of a "mediste." This is quite a serious matter, when we bear in mind that "Society" is often shaken to its foundations by lighter and more frivolous ques-

tions. There is as much curiosity in the higher circles to know whether a gown is native or foreign as there is in some other circles to know whether the load of furniture going to Thompson's across the street, was bought on monthly payments or was paid for all at once. And, by the way, how did Jenkins find out that Mrs. Ruby's velvet was "imported"? Did Mrs. Ruby tell him so, or did he learn it from the housemaid?

In Vanity Fair everything is "high," and consequently it was inspiring to see among the holiday blessings, a description of a high-toned wedding celebrated at "high noon." There were some plebeian weddings going on at the same time, but they were "low noon" imitations, of little value. Exalting as all this was, it was far below the giddy height to which I soared on reading that "Mr. and Mrs. Velvet, and Miss Velvetine Velvet gave a High Tea at seven o'clock." Curious to solve the mystery and meaning of a "high tea," I inquired of an acquaintance who had "been there" what it meant, and he told me that a "high tea" was an entertainment where the guests had a high old time. Well, I have no objection to that, but I can hardly think of any literary debasement more servile than describing women's gowns, and their trimmings of "barbaric pearl and gold"; their silk, satin, tulle, and mousseline de soie, whatever that is, with the impressive emphasis "décolleté," a very vulgar word, the exclusive property of the rich.

It is melancholy enough to behold a proud citizen of the American republic devoting his literary talents to the glorification of women's gowns, but what shall we say of his inferior colleague describing with rapture the gowns of old men. And yet one of the "great dailies" devoted a whole column last Sunday morning to a full, true, and particular account of the texture, quality, price, and cut of a gown, just made for an elderly gentleman named Brown, recently appointed a Justice of the Supreme Court of the United States. With reverent gush the reporter tells us that while the Chief Justice is arrayed in "black Chinese satin," his associates are "robed in silk," but whether that is Chinese or American he does not say. With due solemnity he informs his eager countrymen that "Justice Brown's gown will be made of wide straight widths, three and a quarter yards wide at the bottom and reaching down to the ankles." With grateful appreciation we learn also that "the gown has a narrow hem around the bottom, and a straight one down the front"; and what is of more importance, that, "at the top is a yoke which is short on the shoulders and forms a deep scallop at the back," and lest we might imagine a silk lining made of calico, it is impressed upon us that, "this yoke has a silk lining between the outside and inner one of silk." Thus, in tedious detail for a column, winding up with a glow of poetry, in which this gown appears as an "artistic creation," for which Mr. Justice Brown will pay "a hundred dollar bill." We are also told that this phenomenon in silk will repose when off duty "on peg numbered 9." By a curious oversight, the result of pure shiftlessness, the reporter has left us in a state of bewilderment and perplexity by neglecting to say whether or not this gown is "décolleté." Some day, some Justice of the Supreme Court will bloom into a strong presidential candidate, by refusing to turn himself into a Westminster Hall image clothed in the ridiculous antiquity of a silk gown.

While the reporters of the Chicago press, like a lot of man-milliners, could condescend to describe with lady's-maid particularity, the dresses worn by the women at the New Year's parties, dances, receptions, and high-teas of the plutocracy, they could not rise to the magnanimity of noticing the "low tea" given by the George H. Thomas Post, G. A. R. at the Honore building on Dearborn Street. Here was gathered a rare company of literally

the "best citizens," a thousand men who thirty years ago flung their buoyant youth and vigorous manhood freely into the fire and smoke of battle for the salvation of the republic. They spent the day in patriotic festival, in listening to speeches racy of the American soil, in exchanging battle memories, and in singing the songs of nationality and liberty. All this was too low-toned and genuine, to receive recognition from the "great and enterprising" papers of Chicago. Those men were not thus treated in 1861, but the 6 is upside down; it is now 1891 Anno Domini, and much of the American spirit of 1861 is also upside down.

I sometimes wonder whether the fame of Columbus is to rest at last on the discovery of America, or upon that other popular fable which describes the manner in which he caused the egg to stand on end. The Columbian Exposition has brought the egg story into prominence again; and in order that it may not entirely divert public attention from the main object of the World's Fair; and as an act of justice to the memory of Columbus himself, I think it is time to give the story an eternal rest. The fable runs, that the problem of standing an egg on end having been submitted as a puzzle to Columbus, he solved it instantly by tapping the egg on the table, and breaking the end of it just enough to make a flat basis on which it stood firm, without a quiver. According to the legend, the philosophers who thought to confound the great mathematician by such a simple question, accepted the solution as correct, acknowledged themselves defeated, and if there was a bet on it, as I suppose there was, gave up the money. It is not a grateful duty to abolish popular myths, but this, like so many better ones must go.

Evidently, the Columbian egg story is a fiction, because if true, Columbus must have been a clumsy juggler, and the breaking of the egg a confession of defeat, an acknowledgement that the problem could not be solved without violating its first implied condition, namely, that the egg uninjured, should stand alone and unsupported on a level surface. Breaking the egg, so far from solving the problem was an evasion of its terms, like untying the Gordian Knot by cutting it into pieces, which was not untying it at all. Columbus might just as well have stuck the egg upright into the salt upon the table, and called that a solution of the puzzle. To make an egg stand upright on a plane surface is not a difficult feat; I have known how to do it for more years than I care to mention, but I have not revealed the secret, fearing that unprincipled men might use it for betting purposes, and win great fortunes with it; but in the *Chicago Tribune* of the 3rd, I find the ancient fiction served up again for the benefit of a correspondent, who being in possession of a print of Hogarth's picture of Columbus and the egg, wanted to know the meaning and the moral of the picture. Rather than endure this any longer I will now give the Columbian secret away.

One day when I was a boy at school we had for a reading lesson the story of Columbus and the egg, just as it was told in the *Tribune* of the 3rd. In my class was a little Irish boy about my own age, whose name was Jerry Grady; and when school was out for noon, Jerry said to me "Did ye mind that shory about Columbus and the egg? Sure that's not the way the thrick was done at all, at all. Come wid me and I'll show ye how Columbus done it." Now it so happened that Jerry's mother kept chickens, and when we reached the house he had no trouble in finding a fresh egg. First putting a clean plate on the table, Jerry took the egg, and shook it violently for some seconds, or until the yolk and the white were thoroughly mixed, like a compound of milk and water. Then after holding the egg upright on the plate until the mixture inside of it had settled quietly into the broad base of it, he withdrew his hand and left the egg standing upright and alone. "There",

said he, "that's the way Columbus done it"; and I have no doubt it was, for I have often done it myself that way, and any body else can do it. My object in correcting this bit of history, is to set Columbus right before the world, and to rescue him from the suspicion that he was ignorant of the easy, scientific, and purely mechanical solution of the egg problem. The reason why an egg will not stand on end is, that its contents are not balanced either in weight or place, but after they are thoroughly mixed, the egg will easily recognize its own centre of gravity, and stand upright, like a toy soldier which is made on the same principle.

M. M. TRUMBULL.

CORRESPONDENCE.

THE PROBLEM OF IMMORTALITY.

To the Editor of *The Open Court*:

REFERRING to the comments of Mr. W. Ingham on Immortality in No. 166 of your issue, the following suggestions are submitted as pertinent.

The case in favor of immortality in some form has enlisted the persistent and very utmost strivings of that line of culture which we represent, for over two thousand years. On the other hand, the case against that doctrine goes almost absolutely unargued. Moreover, the case in general, so far as our line of culture is concerned, has always been tried before a jury prejudiced in the very strongest way towards finding a verdict in the affirmative. Every recourse of fact and argument that could be made to yield any plausible support of an affirmative conclusion has been worked to the utmost. Yet in spite of all this it is very very true, as Edwin Arnold says, that "man has not as yet been able to persuade himself that he is immortal." In proof of this no better evidence can be conceived than the perennial reiteration of efforts on behalf of the doctrine when no one assails it. The considerations that militate against the ordinary conceptions of immortality are such as intrude themselves unbidden and unwelcome upon the free course of cogitation and operate in virtue of a candor that cannot be utterly suppressed. I doubt not, that to many minds the most cogent argument against the doctrine is the perception which candor forces that the arguments advanced on its behalf dissolve at the first touch of criticism. They endure because no one wishes to criticise them and flit from tongue to tongue or from pen to pen without contradiction and also without force except to special individual cases. Those who are competent to criticise with effect the current conceptions in regard to another life have ever been fearful of overshooting their mark. They have always had at least a subconscious glimmer of the truth that this belief however fallacious with respect to the forms into which it has been cast is a salutary one, and represents a verity which man can ill afford to ignore. What this verity is we are as yet quite unprepared to recognize and it is probable that we will remain so for much time to come. We realize too inadequately the constitution and order of Nature and our own nature as a factor therein to favor that view of our destiny which merely natural law is fit to display and which rightly comprehended is fit to satisfy all our worthy aspirations. We are even misled in regard to our very proclivities in this matter. If we could so far lay aside our inveterate habits of dealing with this subject as to realize and rightly value the promises we so inconsiderately make to ourselves, we would see that the same, as a future life, are simply monstrous and a life not worth the living. "More life, and fuller, than we want," not more existence, nor a somewhat that is other than—however fulfilled—the very kind of life that we now spend. Let those who are apt to beguile themselves with the prejudice that death as an eternal sleep is naturally and universally the king of terrors to mankind bethink themselves of

the disciples of another line of human culture than ours, and a constituency far more numerous, who yearn and strive for annihilation in precisely the same mood that we hunger after persistent life. Nay let them even reflect on the annals of suicide and what that great fact implies. Let those who assent to the traditional religious conception of future life realize what the supposition of hell, however stated, makes absolutely necessary in the conception of the heaven they promise themselves.

It is only by fatuously refusing to think, that any one can for an instant desire such a heaven. Utterly sordid and callous monstrosities in feeling might perhaps suppose themselves happy there, but not beings with human ties, human love, or human compassion. The case needs only to be realized to know that hell with all its abominations would be far less abominable than that abomination of desolation that heaven must become in order to harbor happiness in the presence of hell. And yet the very inducement for a future life is mainly the salvation it affords for those dear human affections which give to life its only worthy value. But what is the separation of simple death to that supposed separation which happiness in heaven for one and misery in hell for a loved one necessarily involves.

And let those who promise themselves they conceive not what of good in a supernatural (i. e. unnatural) future life, ponder on the conditions necessary to be fulfilled in order to make such a life worth the living.

Mother Nature is far kinder to us than we are apt to acknowledge.

FRANCIS C. RUSSELL.

SCIENCE AND ZOÖPHILY.

To the Editor of *The Open Court*—

MR. CONWAY reminds me of that French king who could so ill brook contradiction, that when he asked a too obsequious courtier what was the time, he received the reply "The time is whatever your Majesty pleases." Mr. Conway admits that he made several mistakes in his article in your columns on "St. Anthony's Day." I considered that these errors called for contradiction, and judging from my personal knowledge of Mr. Conway, I gave him credit for the desire that a scientific no less than a religious argument should be accurately presented to the public. For a criticism which I wrote on Mr. Conway's utterances in the kindest spirit and without the smallest idea of offence, he accuses me in his letter in your paper of November 27th of "animus towards" him, of want of veracity and all sorts of things, very reprehensible in intelligent disputants. But this very letter of accusation against my truthfulness justifies the gravamen of my charge. I said, and I repeat it, that I had heard Mr. Conway defend the atrocities of the scientists who torture living animals for purposes of research. He declares this to be "false witness." Yet four lines further he proceeds to say "that it (Vivisection) should be allowed only under jealous restrictions to specialists of capacity engaged in definite research." But it is these very "specialists of capacity" against whom the Anti-Vivisection crusade is directed, it is by such "specialists," "artists in Vivisections," that the most horrible atrocities imaginable are daily performed. It was the specialist Mantegazza who crucified dogs with hundreds of nails to see what effect such treatment would have on the production of the three degrees of pain, which he himself in his "Fisiologia del dolore" classifies as "intense," "cruel," and "most atrocious" agony. It was such a "specialist" as Dr. Klein who told the Royal Commission of the House of Lords that he had "no regard at all" for the sufferings of the animals used in the physiological laboratory—*Blue Book* (3,540). It was Professor Rutherford who, as reported in *The British Medical Journal*, quoted in Mr. Reid's speech in the House of Commons April 4th, 1883, performed—without anesthetics—on the bile ducts of 31 dogs a long course of terribly cruel experiments, using the drug termed by Lord Tennyson "the hellish worral,"

to prevent the agonised beasts from moving or shrieking. To license a highly educated man to commit acts of cruelty which would not be tolerated, even if they were possible, in a costermonger, is not less injurious to the society which permits than to the animals which suffer such things. I say that Mr. Conway is not consistent, not fair, when he charges the Bible and Christianity with neglecting to uphold the rights of animals, while he at the same time praises modern science in the person of Darwin for introducing a better moral sentiment in this respect; he must know that it is just these ardent followers of Darwin and the devotees of modern science who demand and practically obtain "a free Vivisection table." Mr. Conway charges me with bearing false witness against him when I said that I heard him in London defend Vivisection. Very well, here is my proof from the pages of the *Zoophilist* of September, 1882:

"A sermon on 'The Vicarious Sufferings of Animals' was recently delivered by Mr. Moncreux Conway. The preacher eulogised the Buddhist treatment of animals and said, 'science is recovering the Oriental idea of religion as evolution is the equivalent of transmigration. Animals are our ancestors as well by moral as by physical likeness. Jumbo illustrates Darwin, and the gush of feeling over him belongs to the greatest advance of modern times. It would not have been possible till lately.' The speaker claimed that this advance was due to our improved acquaintance with the anatomy and physiology of the lower animals, that in fact the animals have to thank the vivisectionists for their improved condition. 'But now science has to confront a Frankenstein (*sic*?) created by itself. We have become too emotional over animal pain. We must not let sentiment obstruct scientific investigation which St. Paul's words here protect—Romans viii., 22: 'For we know that the whole creation groaneth and travaileth in pain together until now... waiting for... the redemption of the body,' or of the ill it is heir to.' Mr. Conway illustrated the benefits of experiments on animals by reference to Pasteur's method of preventing cholera, and then made the following astounding statements about digitalis—'Digitalis was formerly supposed to lower the action of the heart. In Edinburgh, 33 dogs were experimented on, and it was found that its action was the reverse of what had been supposed. The repeated relief to heart disease given by this drug in consequence of these experiments had practically ended the complaint and made life enjoyable to sufferers from cardiac affections. It was stated that the Secretary of the Royal Society for Prevention of Cruelty to Animals spent 16 years as an honorable squire on the physiologists, and testified that he knew of no instance at all of wanton cruelty, and few of even carelessness—in most cases no more pain was inflicted than in vaccination. There are abuses in other countries, but none here. *Repeal this venetian legislation against knowledge*, and then extend to all animals the protection you afford those required by science. Animals sacrificed to the gods were adorned with garlands of flowers not less tenderly than we treat those offered on the altars of science.'"

When Mr. Conway demanded the repeal of the English Act which places certain formal restrictions on the Vivisectionists I think I am justified in saying that he defended the atrocities of the Vivisectionists. It would have been more in accord with the spirit of the "Rules of Civility" if Mr. Conway had asked for the authority for my statement before charging me with falsehood. But your correspondent not only in his haste called one man a liar but rather scornfully and most unjustly assumes that the Editor of the *Zoophilist* would refuse to insert his letter of October 1st. As a fact Mr. Conway's epistle duly appeared with an explanation from the editor in the *Zoophilist* of November 1st. Your correspondent says the word "*Zoophilist*" is not in his Webster—that is a matter which chiefly concerns the editors of that excellent work. It can be found in *Cassell's Encyclopaedic Dictionary* and I may add that we have not "coined a name" for our movement in calling ourselves *Zoophilists*. In Southey's "Doctor," Ch. cxxviii we find "Our philosopher and *Zoophilist*." Mr. Conway asks: "Who ever said that Christianity was an exploded superstition or anything like it?" He rather gratuitously answers himself in the words "probably nobody." His acquaintance with atheists and agnostics must be limited. In page 87 of his own book "The Earthward Pilgrimage," there is a sentence which comes very near to it. "England is the cemetery of Religions: Druidism, Odinism, Romanism, came from afar to find their graves here; and behold the feet of them which have buried those religions are at the door, and shall carry out also that which remains to frighten fools and

make hypocrites of the able, moulding no heart to simplicity and grandeur." Evidently the Orthodox Christians have not the monopoly of arrogance, dogmatism, and misrepresentation.

EDWARD BERDOE.

IN TOUCH.

BY WILBUR LARREMORE.

O BROTHER SOUL whose bands, begrimed with toil,
To mine extended Christian kinship claim,
No longer from the contact I recoil,
That we were strangers was our mutual blame!
No longer art thou as a sluggish foil
To all the hopes for thee our hearts would frame,
Or as a tool for false friends to embroil
In strife that brings but poverty and shame.

Look but around us; common men are waking
To academic truths, and prove them true!
Look but around us; common men are breaking
From custom's shackle to religion new!
Glib demagogues and prophets false are quaking;
Lo, men are thinking, Man shall have his due!

BOOK REVIEWS.

UPWARD STEPS OF SEVENTY YEARS. By *Giles R. Stebbins*. New York: United States Book Company.

The aim of this work is to give an idea of the growth of reforms, leading up to the anti-slavery movement, in which Mr. Stebbins has taken part, and it includes biographical sketches of many persons with whom during that period he came into contact. The final chapter "Religious Outlook—Coming Reforms" ends with a phrase which well expresses the mental attitude of the author—"the Past reappears, prophetic of a higher Future."

12.

ONE OF "BERRIAN'S" NOVELS. By *Mrs. C. H. Stone*. New York: Welch, Fracker Company, 1890.

No reader of Mr. Bellamy's socialistic romance requires to be told that "Berrian" is the novelist of the regenerated society described in "Looking Backwards." Mrs. Stone is evidently a firm supporter of the so-called Nationalist movement, as she sorrowfully dedicates her book to "all who believe 'competition' to be the only incentive to progress." It is intended as a protest against the idea that, when the purely physical has been "beaten back to its proper confines," the original foundation of love is to be finally eliminated. Just as little could this be done, as could in real life the "disorderly classes" be made good members of society by the system of training described by "Berrian."

12.

THE PATHWAY OF THE SPIRIT. By *John Hamlin Dewey*, M. D. New York: Frank F. Lovell & Company.

This book which is described as "a guide to Inspiration, Illumination, and Divine Realization on Earth," is the second volume of the *Christian Theosophy Series*. The first volume, entitled "The Way, the Truth, and the Life," was a Handbook of Christian Theosophy, Healing and Psychic Culture, giving "an outline study of man in the light of the Christ life and teaching," and the present pages are in continuation of the same elastic theme. Dr. Dewey believes in the ultimate certainty of an emancipated and perfected humanity on earth, and that its immediate realization is a divine possibility and provision.

BOOK NOTICES.

Concerning the Rules and the Applications of *Reichert's Haemometer*. By *Frederick Gaertner*, A. M., M. D., etc. Pittsburg, Penna., U. S. A., 1890. This Haemometer is a very ingenious apparatus for ascertaining the haemoglobin in either a diseased or

a normal condition of the blood. The rules for its application are very elaborate, but not more so than the delicacy of the test requires.

Mr. Pedro V. Aspúsa, of Nos. 40 and 42 Broadway, New York, is the General Agent for the United States and Spanish America of two historical works, published in Spanish by his late father in 1877. One of the works, in fourteen volumes, is a compilation of 4599 documents relating to the history of a great part of Spanish America, from the discovery of the continent by Columbus down to 1830, the price of which is fifty dollars; the other work, in four volumes, consists of 258 biographies of prominent men of Spanish America during the war of Independence, published at ten dollars.

The Philadelphia Society for the Extension of University Teaching has published a Report by its Secretary, Mr. George Henderson, on the University Extension movement in England. Started about twenty years ago, this movement has now attained large proportions, and by the affiliation of local colleges and classes it bids fair to develop into "a scheme of higher education truly national in character." One of its primary aims is to encourage independent study, and this is carried out through Students Associations and The National Home Reading Union, which has taken the place of the original Home Reading Circles.

Mr. J. Mark Baldwin, Professor of Psychology at the University of Toronto, has communicated to *Science* the result of his observations upon his own child, extending over the greater part of the first year, "to examine more particularly into the time at which the child begins to show signs of marked preference for either hand." A distinct preference for the right hand in violent efforts in reaching became noticeable in the seventh and eighth months. At the thirteenth month the child was a confirmed right-hander. Professor Baldwin regards the preference as due to the feeling of stronger outward nervous pressure in the case of that hand. (*Science*, Oct. 31st, 1890.)

NOTES.

THE celebrated dramatic company from Munich, under the directorship of the Bavarian Royal Court Actor Max Hofpauer, are at present visiting the United States and will be appreciated by many. We are used not so much to artistic as to artificial acting. The characters represented are created artificially for a purpose, chiefly to amuse, rarely to instruct. This company portrays—nay mirrors—with the most accurate correctness real characters from actual life. So genuine is the representation that it does not take a great while before one imagines oneself to be right among the people represented. It has been said that realism upon the stage is not true art; that it is the mission of the latter to idealize rather than to reproduce life. Nothing could be more erroneous than this, as applied to dramatic art. It would be true indeed if the lower phases of life were represented, as is done by the realistic school of novelists of the present day. It is not done by these artists, nor by the authors they interpret. It is true they portray chiefly rural people, but they portray them in all their simplicity and genuine piety of heart, and in these people surely exist the ideal phases of life, which are not often found in the artificial life of the people in cities of to-day. Unfortunately we, in this country, even in the rural districts, know as a rule only city life. These representations ought to be largely attended, as their moral influence in their wholesome realism cannot be doubted.

E. T. L. G.

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SEXUAL ETHICS.

SEXUAL ethics is the very core of all ethics. It is the most important sphere of human conduct, the tenderest, holiest, and most delicate realm of moral aspirations. When speaking of morality, we first of all think of sexual purity. So much is sexual ethics regarded as the very essence of morality! And no wonder that it is so. Consider but for a moment the importance of sexual relations! The future of our race depends upon them. The generations to come are shaped, they are created through sexual relations.

The legalized form of the sexual relation is called marriage. If marriage were not a sacrament, we ought to make it such, for it is the dearest, the most important, and most sacred of all human bonds.

The relation of parents to children is sacred indeed. It is the relation of the past to the present. Parents hand down the hallowed torch of spirit-life to the present generation; and if there is anything holier still, it certainly is the alliance between husband and wife to become parents and to devote themselves to the continuation of humanity and all the spiritual treasures of the race.

The sexual relation is a natural want produced through the necessity of self-preservation. The human soul yearns to live; it yearns to grow and to multiply. In the face of death it longs for immortality, but immortality is not granted to the individual and in order to become immortal an individual must grow beyond the limits of individuality. The natural consequence of these conditions is that immortality can spring from love only. Immortality must be gained by sacrifice, it must be taken by conquest, and there is but one power that can gain immortality. It is that power of which the Song of Songs says, "it is stronger than death." That one power is the holiness of the sexual relation, it is matrimonial love.

If we deprive sex-relation of its sanctity, it sinks down far below the most brutish acts of lowest animal life. Human sex relation in which the spiritual elements of love and an exchange of soul are lacking degrades man and more so woman; it deprives them of their sanctity and sullies the holiest emotions they are capable of—the longing for immortal life. Animal sex-relations are at least natural. Animals yield to their natural wants without any consciousness of their

importance or consequences. In the absence of thought, it is nature that acts in them. Immoral men and women, who prostitute the holiest sentiments because they imagine they find a pleasure in so doing, cease to remain natural and accustom themselves artificially to unnatural wants which weaken their bodies and poison their souls.

The apostle (in the Epistle to the Ephesians, vi. 2) speaks of the commandment "Honor thy father and mother," as being "the first commandment with promise." Reverence to parents is our willingness to receive the sacred torch of human soul-life with a grateful mind. Lack of reverence is a self-deprivation of this rich inheritance, and the highest reverence is shown not by a passive reception of merely conservative obedience, but by actively taking possession of the spiritual treasures by sifting them critically and by increasing their value. In fact, there is no passive receiving; all receiving is an active taking. Says Goethe:

"What from your father's heritage is lent,
Earn it anew to really possess it."

Greater than the promise of the fifth commandment is the blessing that accompanies sexual purity. Chastity is the condition of physical, mental, and moral health. When the Romans became acquainted with the valiant barbarians of the North, they recognized the natural holiness of the sexual relation as the source of their strength. Cæsar as well as Tacitus are fully aware of this fact and give in their historical accounts of German life with keen foresight due prominence to this most important factor in the evolution of a nation of barbarians.

The sexual instinct of man serves a most important and sacred purpose; it is the preservation of human soul-life, it is the attainment of immortality. If it is led into other channels, it decoys man into dangerous aberrations. Woe to those who find pleasure in depriving it of its sanctity! The curse that falls upon them will outlive their lives, for it will go down to their children and the children of their children.

It is not ethereal prudery that nature demands of us, not an extirpation or suppression of nature, but an elevation and purification, that the noblest features of nature's living and moving and being may be developed. A cynical attitude towards the mysteries of sexual life besmirches the soul of man with moral filth.

Chastity has regard for laws that underlie the procreation of life, and reverence for the tenderest and most wonderful of nature's secret dispensations.

A TEST OF CONDUCT.

BY F. M. HOLLAND.

In a previous article I tried to show that a practicable and accurate test, to show what is right or wrong, may be found in the conditions of social existence and progress. In other words, I hold that actions which tend to help mankind to exist and advance are morally right, that those which tend to destroy the existence of our race, or even to check its progress, are morally wrong, and that those which have no tendency either way, are neither right nor wrong. Motives, of course, are virtuous or vicious, according as they are meant to produce actions by which social progress is promoted or checked; no action which does not proceed from virtuous motives can be right; but an act which is so prompted may be morally wrong, as is the case with persecution, not to mention other conscientious errors which will soon be pointed out.

Calling this test practicable does not mean that it ought to be substituted for conscience as a daily guide. When conscience bids us be generous, chaste, or honest, it is morally safer, as a rule, for us to obey promptly and disinterestedly, than for us to sit down to calculate the probability that this particular action will prove conducive or detrimental to social progress. And so, when I want to know what time it is, I usually prefer looking at my watch, to making the journey necessary to consult a clock regulated by the Cambridge Observatory. When I happen to pass such a clock, however, I am very glad to see whether my watch differs from it; and I always know which is in the wrong. So if we feel any doubt whether we ought to feed a tramp, or help wreck a liquor saloon, or resist force with force, or take a vow of celibacy, we cannot be sure that we are acting virtuously, unless we choose some guide less subject to be perverted by passion and prejudice, than conscience.

The test I propose does not justify the encouragement of mendicancy by thoughtless charity, or the wanton disturbance of the public peace. It permits both nations and individuals to defend themselves; but it condemns wars of conquest, as likely not only to retard the general progress, but to curse the conquerors with retaliation from abroad and despotism at home.

Thus this test shows its accuracy by censuring nothing universally acknowledged to be virtuous, and sanctioning nothing generally considered vicious. What I claim most confidently for it, is its capacity to furnish a full code of duties. As I repeat the list already given, I will try to arrange them in the order justified

by their fitness to promote social progress. And first, should come a virtue which has been insisted upon by all rulers and teachers from the very beginning, which is still required peremptorily of all the members of society, and which has also the peculiar merit of not being liable to excess. All this is true of no virtue but justice.

The only danger about recognizing the rights of others is that of failing to do so fully. If I give my neighbor more than his due, I act unjustly towards myself or some other member of society. Whatever is just is obligatory; and whatever is not just is unjust.

In the same way, when we enlarge the definition of justice so far as to include veracity, we find not only that whatever is not true is under condemnation because it is false, but also that, when I tell my neighbor all he is entitled to hear, and nothing more, I comply fully with the requirements of social progress, as well as with those of the law of justice.

It may be noticed that I agree more closely with ancient than modern moralists, in placing justice above benevolence; but I am inclined to think that this last virtue is so liable to be carried to excess that it ought to stand lower than justice, though among other duties which are constantly obligatory on all the members of society, within the limits marked out by the conditions of social progress.

Thriftiness is so liable to be carried to excess, that it has been regarded with little favor by Christian moralists; and its cultivation ought to be kept in strict and constant subordination to that of justice. It must, however, be remembered that one of the most uniform characteristics of criminals is incapacity for success in business or even for steady work, and also that thrifty nations have been highly virtuous in all other respects, as well as very successful in making progress. The states in our own Union which have a peculiarly industrious, frugal, and enterprising population can show the largest amount of benevolence, patriotism, and scholarship, as well as the smallest taint of lawlessness, dishonesty, drunkenness, unchastity, and other gross vice. An honest and thrifty nation, family, or individual, is so much more likely than a thriftless one to be virtuous, and not vicious, that I should place thriftiness second in the scale of duties; while the danger of excess will be sufficiently guarded against by keeping justice high above it, and giving the next below to benevolence, a virtue absolutely necessary to social progress, if only to provide adequate care for young or temporarily disabled members of society.

This reason also makes the maintenance of the family tie so important, that we may give the fourth place to chastity, which has the farther advantage of greatly promoting the culture of all other good quali-

ties. This last is also true of the kindred virtue, self-control, especially when we define it as including temperance.

Having thus filled five places, we must certainly give the next one to physical culture. Utter neglect of this duty would soon make it impossible to practise any other; and it is hardly necessary to say that healthy people are generally much more thrifty, benevolent, honest, patriotic, intelligent, fond of liberty, and capable of self-control than invalids are. The care now given by civilized governments to make all the surroundings of daily life healthy, for the poor as well as the rich, ensures not only rapid progress in civilization, but steady moral improvement.

Then last come duties which are not required of all the members of society, but are highly obligatory on those men and women who are capable of performing them. Here, in order of relative importance, may be placed love of liberty, mental culture, patriotism, and philanthropy. All four are very liable to be carried to excess; and their manifestation should be carefully restricted by the claims of higher duties, especially justice.

First among these four, I put love of liberty, because lack of this virtue was the main cause of the decay of classic civilization. The capacity of vigorous rulers to promote social progress, and the liability of anarchy to check it, are so great as often to cause the establishment of despotism; but this has always been found, sooner or later, to be incompatible with further progress. The most highly advanced communities need most to have their influential members love liberty with a zeal ever on the watch against oppression.

Mental culture seems to be somewhat less important, and not so necessary as physical culture, self-control, and other qualities which must always be added in order to make it permanently useful, and which have proved extremely beneficial where it has been utterly lacking. I cannot insist too strongly on the fact that the life and strength of society lies mainly in its thrifty, honest, and healthy members. All its members ought to do their utmost to belong in this class; but all cannot be scholars, patriots, or philanthropists.

Patriotism is much more generally obligatory at election times in this country than during the rest of the year; and there are many countries which scarcely permit its manifestation in time of peace, as well as some rulers who give it no opportunity of legitimate exercise, except in insurrection. Those of our own citizens who are constantly in charge of our national interests are under so great moral responsibility, that patriotism rises for them to a very high place in the rank of duties.

The same may be said of philanthropy for the few who are able to practice it successfully; but it must

be remembered that this requires not merely wealth, leisure, and earnestness, but also sound judgment, high business capacity, and thorough acquaintance, not only with the evils actually existing in society, but with the actual working in times past of various institutions and reforms. There are few ways in which one can do so much good as in philanthropy, or so much mischief.

Those who ignore the claims of justice, self-control, thriftiness, love of liberty, and mental culture, cannot attempt philanthropy except to its discredit and to the public injury. There is no space left to dwell on what may be done by wise and just philanthropists, especially in diminishing poverty, which has been dangerously increased by thoughtless and lavish benevolence. Highest in honor among the men and women who carry society onwards and upwards are these philanthropists.

RELIGION AND SCIENCE—THEIR INCONGRUITY.

BY R. LEWINS, M. D.

"To say I have changed my opinion, is only to say I am wiser to-day than I was yesterday."—*Prose*.

HAVING recently read, with much interest and profit, Dr. Carus's *Fundamental Problems and Lectures on Ethics*, I am desirous, with his sanction, and in accordance with the noble sentence which closes the preface to the latter work: "Criticism is solicited from all who dissent from its views; wherever any one will convince me of error, he will find me ready to change my opinion and to accept the truth whatever it be,"—to offer a few but crucial objections to his in many respects harmonious world-scheme. I shall be very brief as the points at issue are quite simple and self-evident.

I base all I have to say on Positive Science, which, in our *fin de siècle* age at all events, entirely eliminates "Spiritualism" of every shade, and brings us face to face with the purest (its gainsayers term it crudest) Materialism, or Somatism. I think a very little reflection ought to convince all who have overcome prejudice and superstition to see that the interaction between an immaterial and material entity, from their incompatibility, is logically unthinkable.

Spirit or *Anima* was to the Ancients really material, being prefigured as a thin vaporous substance like the hypothetical ether of modern chemistry and physics. Plato insists that our souls are made of the same material as the fixed stars, which alone is Materialism unmasked. So that when Greek Philosophy speaks of animism, it can note something quite different from what our Religion labels "Spirit."

My position is that the union or *ecumenon* of Science and Religion is impossible. Just as that of Matter and *Anima*. And that where Religion is Science and Reason are not, and *vice versa*.

I prefer arguing the point in dispute on physiological *data*, the offspring of the century, now verging to its close, in which we live. At one fell *coup* we thus, in the simplest and most *naïve* manner, get entirely scot-free of the dual distinction between soul, which is only another word for life, like *Psyche*, and body. Dr. Carus appears to me to make too much use of the compound epithet "Soul-Life," which at best is only tautology. Define Life, as Medicine, now the science of human nature itself, does, as the sum of the organic functions, and a consistent Monism, unifying Self and the Cosmos, *i. e.* subject and object, is the self-evident result. It is the identification of Being and Thinking, only reached by a short cut as compared with the Kantian, Hegelian, or all other Metaphysics. Kant denying *Ding an sich* exactly hits the mark. Only he is not consistent with his principle. Indeed it is difficult to make out his real meaning, for *ehrlich* as, in general, he was, he still practised a certain mental reservation, as he himself during his most energetic period, confesses in a letter to Moses Mendelssohn. As Goethe says, *Gefühl ist Alles*, and *Gefühl und Bewusstsein*, or Consciousness, are synonyms. Till an object is subjected by entering the sphere of consciousness, it can have no rational value and is as non-existent to a sentient being after it has sown its intellectual wild oats.

And this *apodeixis* alone proves my case that there is, and can be no other "outer" world than our senses, of which Thought is a mode made for us. We are thus at once both *creator* and *creation* in the only sphere, relational or phenomenal, to which we have access. Religion haunts the Absolute sphere, and that is quite out of our lines as utterly inaccessible to human thought. The mere fact that all percepts and concepts are produced in a human mind (brain) ought to convince us that higher than humanity and ultimately Egoity, Man and the Ego cannot range. God therefore, like every "thing" (concept) else, must be a brain-made phenomenon and the only noumenon, if we care to use these now familiar terms which is non-essential, is *Ourself*.

Pope, in the fourth book of the *Dunciad*, is very severe on this lapse from Absolutism. And yet it is really his own theory in his *Essay on Man*, when he traces Heaven to the passion of pride and Hell to that of spite. I could argue this question in other ways, indeed have done so in former years *ad nauseam*. Even on transcendental grounds from the Omnipresence of Deity, which as Pantheistic practically forecloses all Personal Divinity, or form of Divine Worship. But the above argument seems all-sufficient. Regard Life as organized function and Death as its exhaustive and cessation and the immemorial fallacy of the impossible interaction of soul, or mind, on Matter is dissipated

at one blow as by a thunderbolt. Nothing ever really dies but only changes its form—and the constituents of our present bodies are as eternal as are Suns and Planets. No real distinction differentiates Time and Eternity, Space and Immensity. And both Concepts, like all others, have no other source that we can hope or fear to reach, than *Ourself*.

It is clear from modern Chemistry that no partition separates the organic and inorganic worlds. And therefore, putting aside all the modern sciences, we reach the physiological (non-spiritual) result equally well on the *data* of Newtonian cosmology. The eschatological colophon of the Attraction of Gravity is to make matter active, not passive and inert. No foreign factor or "Spirit" is therefore needed to "*animate*" what by an inseparable *Vitalis* is already capable of doing its own work. And Deity *inter alios omnes* is thus an illogical superfluity, must be so if Self be all in all.

Natural Religion, of which Voltaire and other sceptics of the eighteenth century were votaries seems a retrogression from the higher "revealed" ones, which were evidently the well-meant, but to us now-a-days, futile and immoral attempts of humanitarian enthusiasts like Christ and Mahomet—to supplant the cruel "God or Law of Nature" by a Being with whom, on certain terms fatal indeed to human dignity and progress a *modus vivendi* became possible.

Mr. Darwin traces all the different species of animals and plants from a few originally called into being by a Creator. But, in a letter to Sir Joseph Hooker, he subsequently retracts that rash assertion and expresses lasting regret that he had ever so far truckled (*sic*) to vulgar opinion as to have broached so unscientific a *genesis* of living beings. It conflicts entirely with the real Principles of Evolution—as does Mr. Spencer's cryptic Agnosticism of the *Unknowable*.

SCIENCE AND RELIGION.

DR. ROBERT LEWINS is one of the most original thinkers of the present day; but being original he uses a terminology of his own, and it may sometimes be difficult to understand his meaning. He characterises his view as Hylo-idealism, which appears to me similar to Monism to the extent that it has been invented for the purpose of combining the truths of idealism as well as realism.

The soul, certainly, can no longer be considered as a material being. Yet "soul" is not quite so identical with "life" as Dr. Lewins declares. We cannot think of a soul without its having life. Similarly we cannot think of matter without its being mass. Soul and life, matter and mass, are abstractions, different in kind, each of which in a certain sense covers the same sphere. The physicist may very well speak of

the mass of a certain piece of matter and the life of a certain soul. Soul is not life and nothing but life. Soul is life of a certain kind. We can speak of soul-life with the same propriety that we speak of the movement of a mechanism, though a mechanism is movement of a special kind. If life is as Dr. Lewins says, "organized function," would it be wrong to speak of the functions of an organism?

The application of Goethe's words "Gefühl ist Alles," as made by Dr. Lewins, is very ingenious, but scarcely redeemable. He says: "Till an object is subjectified by entering the sphere of consciousness, it can have no rational value, and is as non-existent to a sentient being after it has sown its intellectual wild oats." Can, for instance, bacilli so long as they do not "enter the sphere of consciousness," be regarded as non-existent to sentient beings?

Dr. Lewins understands by religion the absence of science and reason. He says: "Religion haunts the absolute sphere, and that is quite out of our lines as utterly inaccessible to human thought." Similarly philosophy was formerly supposed to haunt the realm of the absolute. The religion of the absolute has been given up just as much as the philosophy of the absolute, but philosophy and religion will not perish on account of religious and philosophical errors. Far from considering religion as antagonistic to science, we understand by religion the practical application of science; it is the regulation of life in accord with our conception of the world.

P. C.

FOREIGN TRADE AND RECIPROCITY.

AFTER discussing their dinner on the evening of December the 18th, the members of the Sunset Club discussed the "Foreign Trade and Reciprocity" question. The debate was opened by Mr. Franklin MacVeagh, with an air of taunt and triumph in his tone resulting from the treatment given the subject by the balloons in November. There was a glow of literary polish on his argument, and the sarcasm in it was not of the tomahawk quality but rather delicate and refined.

Although Mr. MacVeagh did not say "Free Trade" from the beginning to the end of his address, he might as well have done so, for he vigorously assailed the principle and doctrine of "Protection"; not merely the McKinley bill, but the whole system in its theory and practice. It was kind and courteous to advocate Free Trade in that negative way out of regard for the feelings of the Democratic party, which is rather apologetic and sensitive on that subject. It fears to be called the abolitionist of commercial slavery, as the republican party used to dread the imputation that it was the abolitionist of man and woman slavery. The Democratic party might make its mark for freedom now, if it had statesmanship equal in size to its victory.

It was the opinion of Mr. MacVeagh that the protective system in the United States was near its end, because the argument for it was exhausted, its promises having failed when put to the test of actual experiment. "When all is promising failure," said the speaker, "Mr. Blaine re-appears. He proposes his lively plan of reciprocity to widen protection's market and to rehabilitate the perishing superstition of the farmer and the moral unconsciousness of those good citizens who have been supporting protection

for partisan purposes." It is difficult to believe Mr. Blaine serious, because he remembers very well how the English protectionists when their argument was exhausted, endeavored to stop the break in the Protection levee, by anointing the flood with a little Wizard oil called "Reciprocity." It failed, according to the law of makeshift politics; it was laughed at as a trick, and it vanished in derision.

Mr. MacVeagh's word-picture of "Reciprocity" was an effective piece of work, graphic in its details and easily understood. He said: "Reciprocity sounds well and is proposed with a certain theatrical effect; but it is illogical, not very moral, and exceedingly oppressive in intent; utterly superficial and hopelessly impossible in plan; and as an answer to the heightening aspirations of this expanding nation petty beyond measure." There is a sting in the last phrase which wounds our national pride. When we think of the immense resources of this nation, the inventive and mechanical industry of its people, and their commercial ambition, the very proposition to restrain their energies by the device of "Reciprocity" gives an air of littleness and pedlars to our statesmanship "petty beyond measure."

It has always appeared to me that the turning of captured cannon upon a retreating enemy, and pouring their own grape and canister into their own backs was the very cruelty of sarcasm although permitted by the laws of war. Grim as the argument is, Mr. MacVeagh adopted it, when after contrasting the "Protection" doctrine with its "Reciprocity" contradiction, he said, "When therefore we quit our isolation or admit the necessity of free trade with other nations, even if they scarcely count, we admit the impossibility of our protective system, and give up whatever made it an intellectual proposition." The protectionist cannon surrendered by Mr. Blaine, is used by Mr. MacVeagh to fire upon the protectionists retreating to the refuge of reciprocity. It is harsh, but it is war.

The opposition to Mr. MacVeagh was led by Mr. Ransom W. Dunham, formerly a member of Congress, and well qualified to speak on the "protection" side. He said that he did not agree with Mr. MacVeagh that Protection was in trouble, "but," he said, "Protection run mad has received a severe criticism from the American people." This admission at the very start that the McKinley bill was protection run mad, rather weakened the rest of Mr. Dunham's argument, because it appeared to many of his hearers, that if the doctrine of protection is founded on moral and economic science, Mr. McKinley was not mad but perfectly consistent in trying to extend as far as possible, its beneficent operation. It is not chivalrous to reproach Mr. McKinley because his bill was condemned by the voters at the polls. If "protection" is right, McKinley is right; elections decide nothing as to principles, although they may settle measures, and sometimes men.

"The principle of protection," said Mr. Dunham, "is this, that it is better for this country to take care of itself and its own people than to take care of other countries and other people." If so, why does he censure Mr. McKinley for his enthusiastic application of the principle? Is it possible to take too much care of this country and its people? The power of elections to reverse opinions is controlling over certain minds. The advocates of a truth may be so badly beaten at an election as to renounce it, but their desertion of it will not change it into a lie, and in the end it will be victorious.

In 1846 the English protectionists, feeling that their cause was lost, asked for an appeal to the people. They said, "if the verdict of a general election is against us, we will acknowledge the free trade principle and submit," and Mr. Cobden instantly answered thus: "Then you have no faith in your doctrine; if you had, you would not submit to one defeat or many." Nor would Mr. Dunham, if he had faith in his doctrine, allow an election to make

him sceptical, nor cause him to stigmatise the McKinley bill as "Protection run mad." If the theory and principle of protection were not condemned in the recent election, there was neither victory nor defeat for either side.

Mr. Dunham believed in "the greatest good for the greatest number." This is a very popular sentiment, but one of the most plausible and dangerous counterfeits that ever passed current among any people. Its political meaning has ever been "the smallest good to the smallest number," and it is perpetually on duty as an excuse for the oppression of the weak. It is the standing apology for a thousand mistakes and a thousand wrongs. It has no place in political ethics, for there never can be in a just political or social system any "smallest number" outside the principle of "the greatest good." The Bill of Rights in the American Constitution is a denial of the doctrine and a protest against it. The vital principle of every law that has any moral purpose in it is "the greatest good for each and all."

The application of his principle to the tariff was for Mr. Dunham, a suicidal *reductio ad absurdum*. As a reason for taking the tariff off sugar, Mr. Dunham said: "Not over twenty-five to fifty thousand people in this country are interested in its production, while sixty-three millions want it free." Very well! Now, less than ten thousand people in the United States are interested in the production of soap, while sixty-three millions want it free. The moment that Mr. Dunham denies to soap the benefit of his doctrine, his argument for free sugar becomes absurd. It is better to lay a tax on sweetness than on cleanliness.

Continuing, Mr. Dunham said: "I do not believe that it is necessary to make the tariff so high that the manufacturer shall profit unreasonably, but I would have it high enough that he may be able to pay a liberal amount of his profits to his laboring men and be well rewarded for the use of his capital." Here again he seems to be illogical in censuring the McKinley bill, for if the tariff raises wages, why not raise the tariff to its highest capacity? And when shall we behold the miraculous tariff that will not only enable the employer to pay high wages, but also compel him to do it? Was there ever a Congress yet omnipotent enough to make such a tariff as that?

Finally Mr. Dunham gave the tariff a bad character by affirming that the trouble with it is that "too many men want the tariff made for their particular benefit." This is equal to saying that the tariff is a premium upon rapacity and avarice, and is probably a deduction from Mr. Dunham's own experience in Congress. While there did he ever see a man lobbying for a tariff to benefit the people at large? Or for a tariff on any other product than his own? Mr. Dunham's complaint amounts to an accusation that the tariff is unpatriotic in its work and spirit, a device for diverting public taxes into private pockets, regardless of the nation's needs. No wonder that he does not want it very high.

In the course of the debate one member of the club proclaimed to the astonished congregation that he was "a protectionist on principle," a phenomenon impossible under the sun. No man will buy in the dearest market and sell in the cheapest on principle. No man will buy dear goods in preference to cheap ones if he can help it, even to encourage home industry. Every year, thousands of American protectionists go to Europe, but amongst them all there is not one protectionist on principle. Not one of them lays in a stock of dear clothing before he starts in order to protect American labor, as he would certainly do if he were a protectionist on principle. Not one of them about to return home postpones the purchase of coats for himself and gowns for his wife, because he is a protectionist on principle, and therefore prefers to pay more for them in the United States.

A childish outcry against one of the greatest American politicians was made a couple of years ago because on his return from Europe he brought with him several trunks filled with "pauper

made goods," purchased in Paris and London. "Why," said a critic, "did he do that, if he was such an ardent protectionist?" And the convincing answer was, "Because he is not a fool."

M. M. TRUMBULL.

CORRESPONDENCE.

THE IMPERSONAL GOD.

To the Editor of *The Open Court*.—

I HAVE long noticed with pleasure that your columns are hospitably opened to the expression of views which are different from your own.

Will you permit me to set down some thoughts that occur to me in reading your article "Design in Nature," in *The Open Court* of Dec. 4th?

Your argument against the personality of the Deity assumes that this personality necessarily implies mutability. You conceive of a machine as the only power by which any work can be done with absolutely mechanical exactness. A machine, you say, "is an unfeeling and an unconscious—a mechanical—intelligence. Personality—what is it but the power of constantly renewed adaptation?" It is "embodied mutability."

Waiving the question how a machine can in any sense be an intelligence, I would merely ask here: Cannot we conceive of a Divine Personality absolutely above and free from anything like the mutability of human personality?

According to your view, here, and in your 'Fundamental Problems,' the cosmic order is God. Why not supplement this conception with that of an infinitely perfect Divine Personality?

You argue very justly against the folly and blasphemy of ascribing to the Deity the imperfect personality of man. But why object to the conception of a supreme and all-including Intelligence and Beneficence, (and therefore necessarily personal,) pervading the Universe—not subject to the cosmic order, as you imagine, but one with it, as soul with body? You speak of such a power conceived of as acting *arbitrarily*—and use the word *interference*. Are these terms quite fair in representing the attitude of the more enlightened and progressive adherents to the Personality idea?

Is there anything superstitious, 'Pagan,' or childishly anthropomorphic in such a conception, if cleansed from the mud of Genesis, and the later Christian mythologies?

I must confess that your idea of a cosmic order without a pervading Intelligence of the highest conceivable nature, directing and controlling all, is one that satisfies neither my intellectual nor my religious demands.

It is almost impossible for me to conceive of law, order, harmony, progress in the Universe, without an all-pervading soul in it. We used to say 'God is Spirit. The Universe is not God, but the manifestation of God to man.' Now, God and the Universe seem to represent the same idea.

You yourself say, God "is more than a person," "superpersonal," "superhuman"; and admit that "the whole cosmos is permeated by eternal and divine law, by intelligence, by design." But it is difficult for me to imagine how your cosmic order can get on of itself, without—well, yes, *conscious* Intelligence—if that is necessary to complete Personality—back of it. Your conception gives us, as it seems to me, a soulless universe.

You say, "a mathematician knows that the regularity of forms necessarily depends upon the laws of form." I should rather say, "is in conformity to, or in harmony with the laws of form."

You say, "at the bottom of all cosmic order lies the order of mathematics—the law that twice two is four." But at the bottom of this—what?

You say, "If God made the world as an inventor makes a machine, he had to obey the laws of Nature and adapt his crea-

tions to the formulas of mathematics. In that case, however, the Creator would not be the Omnipotent and Supreme God: there would still be an impersonal Deity above him. In that case the Creator would be no less subject to the cosmic order than we poor mortals are."

The idea of making the world as an inventor makes a machine, ought only to be ascribed to a very crude state of thought among men; and I don't think you would state it as the thought of any very intelligent opponent.

Cannot we rationally conceive of a Divine Personality, not arbitrarily interfering, but immanent, and in perfect accord with the laws of the universe? Why clothe the soul of the All with imagery borrowed from our imperfections? You say, "This impersonal intelligence is higher than personal intelligence, as much so as the laws of a country are infinitely higher and holier than all its citizens." The laws may be higher and holier than the citizens of a particular period; but are they higher and holier than their originators? or than the collective wisdom of the legislators from whom they emanated?

If so, then why should it be irrational to conceive of an infinite supreme source of wisdom back of the order of nature—not interfering in any miraculous way that may not be explained by science—but immanent and in perfect accord with all—not working by "renewed adaptation," but with a supreme intelligence such as no machine could in the remotest degree imitate?

As for Anthropomorphism, is it possible to escape from a certain tinge of it in our highest conceptions of Deity? We should not be human otherwise. We do all our thinking by symbols, by imagery. The soul of man and the universe are so related by these wonderful correspondences between material and spiritual things, that it cannot be otherwise.

But is it not as rational to conceive of personal Deity as of an unconscious universal law and order that exists of itself, or which is in itself both cosmic Soul and Body?

It seems to me that both our intellectual and our religious wants are left unsatisfied by leaving us with the conception that the universe runs itself, rather than in harmony with an infinite Personality, pervading it through and through with a diviner life.

So far from believing with you, that "the worship of a personal God is the last remnant of Paganism," it seems to me that it is so deeply founded on the needs of our human nature, and on a universal common sense instinct, that it will never die out of our creeds, although it will become more and more refined, pure and intelligent with the advancement of the race in knowledge and religion.

Hoping that these suggestions may find an assenting voice with some of the readers of your valuable and interesting journal,

I am very sincerely yours,

CAMBRIDGE, MASS.

CHRISTOPHER P. CRANCH.

IN REPLY TO DR. EDWARD BERDOE.

To the Editor of The Open Court:—

THE false witness borne against me by Dr. Edward Berdoo, consisted in a *suppression veri*. He had no right to say that I had defended "the atrocities of vivisection" without the qualification that I advocated its restriction to a comparatively few eminent men whom parliamentary investigation had shown (as I believed) above suspicion of cruelty. Dr. Berdoo's offence would be made a shade darker by his present letter, did it not suggest allowance to be made for constitutional inexactness. For, in reasserting that I demanded "the repeal of the English Act which places certain formal restrictions on Vivisection," Dr. Berdoo adduces a witness that refutes him. The little travesty of my discourse quoted from the *Zephyr*,—sarcastic and hostile as it is,—represents me as saying, "Repeat this vexatious legislation against knowledge, and

then extend to all animals the protection you afford those required by science." Here then, when writing his original letter in your columns (Nov. 13, 1890), my accuser had evidence before him that I desired protection for the animals required by science, and not the repeal of that protection; and that I wished to extend that protection farther than (so far as I am aware) the anti-vivisectionists had advocated,—even to the foxes, hinds, and other victims of the English gentry. There was also a *suggestio falsi* in Dr. Berdoo's use in quotation-marks, which might naturally be connected with me, of the phrase "the exploded superstition known as Christianity." My forty years acquaintance with freethinkers does not suggest one who could have written such nonsense. Dr. Berdoo has no right, I repeat, in controversy with a public teacher, especially one whose teachings he has attended and is considering, to insinuate between quotation-marks things he might be supposed to have heard from that teacher. And the case is worse when, as it now appears, the apparent quotation is Dr. Berdoo's own invention. Let me also protest against Dr. Berdoo's saying "he charges the Bible and Christianity with neglecting to uphold the rights of animals." I should as soon think of charging them with not upholding Dr. Koch's lymph. There is no question of "charges." The Bible and Christianity could not, as I have argued, recognise the "rights of animals," because they did not share the oriental belief in transmigration, which is the fable of evolution.

MONTGOMERY D. CONWAY.

BOOK REVIEWS.

THE SEPTONATE AND THE CENTRALIZATION OF THE TONAL SYSTEM. A new view of the Fundamental Relations of tones and a simplification of the theory and practice of music with an introduction on a higher education in Music. By Julius Klausner. Milwaukee, 1890.

This is the work of an earnest and enthusiastic artist, who among his colleagues is distinguished by a philosophical turn of mind, as well as a comprehensiveness and clearness in dealing with the intricate problems of music. New principles in the theory of music are generally considered with suspicion; but the novelty in Mr. Klausner's work consists chiefly in a simplification and a clarification of the old views. Thus, for instance, by his peculiar method of viewing the seven principal tones of the scale and their intermediate tones, he gets rid of the minor key; and he wages a war against such expressions as "inversions and changed chords." "Tones," Mr. Klausner says, "are distinct, they cannot be modified, they do not move; intervals are distinct, chords are distinct." Thus the novelty does not revolutionize music, it is not a new theory, but a new method of presenting the musical relations, and this new method is based on the maxim that "the key is the basis of all music; the musical relations of tones are key relations; key harmony is the harmonic basis of key relations, hence of all music."

It is impossible for us to enter into the details of Mr. Klausner's views either to defend or criticize them. If the book is destined to have a lasting influence, this will depend upon its reception in musical circles. So far, it appears, the reception of the book in professional journals of music has been favorable, as might be expected of a musician who as a teacher and artist ranks so high as the author of this book. We have only to add that the introduction of the book, being a chapter on "a higher education in music," contains many excellent suggestions, not only concerning its desirability but also its practicability.

NOTES.

We cannot approve of the methods and the taste displayed by the Editor of *Lurifer* in the advocacy of his peculiar views on the emancipation of woman from the bonds imposed upon her by the marriage laws of society; for we do not believe that the evils he denounces are prevalent. We regret, however, that he should

have been imprisoned in the penitentiary, especially as he is of a very advanced age. If our courts wish to advance a cause by making martyrs, they might select some object better fitted for the purpose. The sentence we regard as unwise, excessive, and unjust.

We have received from M. L. Holbrook & Co., of New York, a volume (222 pages) of verses by ENMA ROSE TUTTLE, of which some are set to music. The poems are inscribed to "the faithful doers of little things which form so large a part of happy and perfect lives;" a portrait of the authoress is prefixed to the book.

We have received from the Freidenker Publishing Co., of Milwaukee, two almanacs, compiled in the German language, for the year 1891. They are called respectively the "Freidenker-Almanach" and the "Amerikanischer Turner-Kalender." They contain the usual statistical information and very much instructive and entertaining reading-matter.

From Samuel C. W. Hyington & Co., (New York, 234 Fourth Ave.,) we have (1) a pamphlet entitled "The Philosophy of Evil," and (2) a book, of 359 pages, entitled "Selections from the Poets, with Responses,"—both by Mr. CALEB S. WEEKS. The latter work consists of notes, comments, and replies in verse to certain poems of Pope, Thomson, Cowper, and others, in which Mr. Weeks has embodied in the metrical form of the originals the corrections that modern science and thought have supplied touching the sentiments and ideas set forth by the authors responded to; the originals appear on the even-numbered pages of the book and the "Responses" thereto on the opposite pages. Mr. Weeks shows himself to be an able versifier and exercises good judgment in some of his discriminations of pure sentiment from fact. Many of the performances, however, can hardly be termed "Responses," as for instance the paraphrase of the "Bridge of Sighs," the reference of which has, so to say, been generalised, and an improved meaning hardly given to it.

FUNK & WAGNALLS of New York, 18 and 20 Astor Place, and 44 Fleet Street, London, England, have in preparation a new dictionary, the title of which will be "The Standard Dictionary of the English Language." To judge from the prospectus and specimen pages of advanced sheets, the work planned promises to be excellent. It is especially praiseworthy that the editors have taken the trouble of locating the verifying quotations, so as to give in each instance not only the name of the author who uses the word, but also the page of the book where the quotation is found. This is indeed a Herculean task and not at all redundant; it will prove very useful to the public at large and especially to the student who is anxious to know the authority and the special circumstances under which this or that meaning has been moulded. In the pronunciation of words the scientific alphabet as adopted by the American Philological Association has been employed; a plan which will be more welcome to scholars than to the general public. It is announced that the new dictionary will contain 50,000 more vocabulary words than are to be found in any other single volume dictionary in England or America, and care has been taken in the admission of new words. No new word is admitted to a vocabulary place unless it has been passed upon by competent authority. The men in charge of this department are Julius H. Seelye of Amherst College, Edward S. Sheldon of Harvard University, Edward Everett Hale, Charles A. Dana, and Howard Crosby. The make-up of the pages, the style of print, and the illustrations remind one of the Century dictionary.

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The Open Court.

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THE SAMARITAN ON 'CHANGE.

BY MONCURE D. CONWAY.

IN A London public school examination a poor little girl is reported to have got somewhat mixed up in reciting from memory the parable of the good Samaritan. "He give 'im tuppence, 'n said, watsomdever more you spendest when I come again I'll repay thee; this he said knowing that he would see 'is face no more." One may feel glad to believe that this little dame of the slums could associate such shrewd Samaritanism with "tuppence." But there appears to be a tendency in the silly Samaritanism of our time to develop a counterpart, of the self-seeking variety, which may ultimately corrupt the whole humanitarian movement. Now and then a philanthropic humbug is impaled, but that is of little advantage unless he is understood. The soul-saving wave is now succeeded by a body-saving wave. We are tolerably familiar with the frauds floated on the former. There is now serving a life-sentence, for forgery on the Bank of England, an American named Bidwell, who long pursued his frauds in Chicago and other western places, at the same time that he was followed as an eloquent revivalist. He converted small bank checks into large ones, and sinners into saints, with great success. Many a good church member to-day owes his awakening to this Rev. Mr. Bidwell, who might have been still redeeming the week's forgeries with Sabbath soul-savings, had he not deserted his mistress in London. We are now informed that crowds are following the exhortations of a convicted murderer in the West. How can common preachers compete with a miracle of grace who has killed a half dozen of his fellow creatures? But these phenomena of a dogma that despised human merits are now found chiefly on the remote frontiers of civilization, and are becoming rare even there. In the centres of culture we are prepared for the wolf in sheep's clothing, so long as he only prays and preaches about salvation in the future life.

But now a great ethical and humanitarian spirit has come upon protestant Christendom. It has floated the creeds and churches, which, if not moved by sympathy, are driven by competition for popularity to help save mankind from the actual satans of pauperism and despair going about seeking whom they may devour. Last year it was announced that even the

Salvation Army itself was to enter on a new departure, and combat these actual satans in England, instead of the fictitious devil of the dark ages. "Gen." Booth's book appeared: he made a literary reputation by it, as well as a goodly sum of money. Wealthy men said: We have misunderstood this man; he is more intelligent than we supposed, and more in earnest, as well as practical. Beside his copyrights, near half a million dollars were contributed to his scheme. But it is now charged that he did not write the book, and had not the ability to write it. A denial by his son is reported, but not as yet from himself; and only filial piety can suppose that a charge, personally substantiated by the writer of the book, can be so disproved.* "Gen." Booth implicitly admits the charge in claiming (though this too is denied) that he supplied the data. But that he knew the value of the literary repute is proved by the publication, in one of his army's papers, of the facsimile of some sentences of the book which were written by himself. Thus the charitable scheme seems to have been floated by an agent, as a new stock might be on 'Change. Had it been a purely pious stock, contemplating erection of churches, circulation of tracts, or converting the heathen, we should be prepared for it. But it is, apparently, a remarkably ignorant and vulgar orthodoxy availing itself of the humanitarian enthusiasm born of rational and secular thought, and availing itself of this surreptitiously. The contributions have all gone to a hand whose trustworthiness is shown by inscribing its name on work it did not do. Nor does the "General" appear to have been much damaged, among his pious adherents, by his imposture.

The ease with which all this was done is the sig-

* "The secret of the authorship of 'In Darkest England,' says the London Times, "is now matter of common knowledge. Charitable hypothesis, combined with the fact that a facsimile of some ten lines of manuscript in Mr. Booth's handwriting has appeared in one of the Salvation journals, assigns to Mr. Booth the credit of having written at least two chapters of the book. His own explanation of the affair is that he supplied a professional writer with the materials for writing a book and that 'In Darkest England' was the result. The question whether, under these circumstances, Mr. Booth was justified in letting the book appear as if it had been written by him, is one of literary ethics, and into such a question we have no right to expect Mr. Booth to enter. 'But,' it may be said, 'the ideas which the book contains were the ideas of Mr. Booth.' There is strong reason for believing that the truth lies in the opposite direction—in fact it is believed that when the whole story comes to be known it will be found that the ideas of the substantial parts of the scheme—that is to say, of the city colony and the farm colony—had their origin in the mind of Mr. Frank Smith, and that these ideas were accepted most reluctantly by Mr. Booth."

nificant thing. Even if "General" Booth should clear himself of the grave personal charge, that he has gained fame and confidence by false pretence, it would remain that the thing can be done. A man has only to make an eloquent and fervent appeal in the name of suffering humanity for money to flow into his hands at once, inquiry coming afterwards. This is not the only sign of the approach of imposture in the guise of Samaritanism. The Tolstoi cult appears to be something of the same kind. I met with a Baroness in Europe who had long enjoyed intimacy with the Tolstoi family, and who gave me a lively account of her recent joyous sojourn in their luxurious castle. When I asked how all that was consistent with the Count's gospel, that we must sell all we have and give it to the poor, and take our place with the manual laborers, the Baroness smiled at my simplicity. I know young men in England and America who, partly by his influence, are practising something like what is preached by Tolstoi from his comfortable study in his castle. They are suffering, as I think vainly, while his undiminished income is swelled by the sale of his self-denying sermons. The inconsistency attracted attention in London, and a plea was put forward that the wealth was secured by the management of the Countess Tolstoi. We have heard that kind of thing as far back as the garden of Eden. The woman gave me and I ate. Oh, of course! But no one familiar with the position of wives anywhere, and especially in Russia, can suppose that Count Tolstoi is suffering the moral martyrdom of living in luxury because of his wife. At present the real Tolstoi gospel seems to be, "Sell all thou hast and give it to the poor, and labor beside them; but the kingdom of Christ must accommodate itself to Counts."

A similar peril besets the ethical enthusiasm. There is hardly any imposture that may not find intrenchment in the moral sentiment. There despotism survives in the lands of democracy. We see sixty millions of people content that a psalm-singing postmaster-general shall determine what books may or may not pass in the mails, providing he makes a pretext of preserving morality. The said postmaster may be pirating English encyclopædias, photographically counterfeited, at the moment he is damning books not on sale in his establishment; he has only to touch the moral nerve to paralyse that liberty of printing which is a chief corner-stone of all liberty. The teachings of Jesus, of Socrates, of others, who founded a higher morality, seemed immoral to the orthodox of their time. There can be no profound ethical culture if thinkers who grapple with great problems,—those of sex and marriage, especially,—are liable to suppression by ignorant officials, who confuse their own vulgarity with virtue.

It would appear necessary that we should comprehend the fact that every movement must have such camp-followers. No sooner does any thought or truth take hold on the popular heart than there will mingle with the honest multitude those who are after the loaves and fishes. As it was with Jesus, so has it been with the movements of Luther, of Wickliff, of Wesley. We cannot expect that the ethical and humanitarian movements will prove exceptions. It is necessary that there shall be a close and rigid criticism of those who profess to lead these new movements. They must possess and prove the courage of their opinions. They are dealing with matters of life and death to millions, they are shaping the destinies of our best-hearted youth, and must be held personally responsible for their utterances.

When Thomas Paine was grappling with the "torries" of Philadelphia, three months before the Declaration of Independence, he wrote to their leader: "To be nobly wrong is more manly than to be meanly right. Only let the error be disinterested—let it not wear the mask but the mark of principle—and 'tis pardonable. It is on this large and liberal ground that we distinguish between men and their tenets, and generously preserve our friendship for the one, while we combat with every prejudice of the other." Himself reared a Quaker, Paine's pen was sharpest on the lamb-like Friends whose peaceful texts were directed to the invader, never to the invader; he counselled resistance, then shouldered his musket and shared the deprivations and dangers of the struggle. That "Crisis," whose opening sentence, "These are the times that try men's souls," was the watchword at Trenton, was written by camp fires. The suffering soldiers were inspired by that which came from a comrade. Words may be half-battles; wedded to deeds, they are victories.

Sincerity is the soul of eloquence. I remember once, in Boston, at a meeting when the possibility of rescuing a fugitive slave from his prison was considered, Theodore Parker arose and simply said, "I am not willing to advise a risk I am unwilling to share." That was all he said, but I have remembered it, coming from that courageous man, as a mandate from the new moral Sinai. Our kid-gloved socialists are in danger of becoming successors to the clergymen who used to frighten ignorant women and children with pictures of hell, while their smiling apathy during the week proved their disbelief in any such perils. When Dr. Channing's father was returning from church with his little son, the latter terrified with the sermon he had heard, he remarked to his wife that he hoped the dinner would not be cold. "Father," said the boy, "if we are all going to hell what matters it about the dinner?" The father whistled. The Unitarian move-

ment was born anew in that little breast. Channing grew up to hold New England thought and scholarship to a moral standard. The scholar of to-day must hold the ethical and social reformer to that same standard. Paine is right. Even that man who faithfully follows an error serves men more than he who utters truth with a double tongue.

I close this little admonition with an extract from a letter received from Emerson, in reply to one written when I was nineteen, a Methodist itinerant in Maryland.

"I believe what interests both you and me, and whether we know it or not, is the morals of intellect; in other words, that no man is worth his room in the world who is not commanded by a legitimate object of thought. The earth is full of frivolous people, who are bending their whole force and the force of nations on trifles, and these are baptised with every grand and holy name, remaining, of course, totally inadequate to occupy any mind; and so skeptics are made. A true soul will disdain to be moved except by what natively commands it, though it should go sad and solitary in search of its master a thousand years. The few superior persons in each community are so by their steadiness to reality and their neglect of appearances. This is the rue and euphrasy that purge the intellect and ensure insight. Its full rewards are slow but sure; and yet I think it has its rewards on the instant, inasmuch as simplicity and grandeur are always better than dapperness."

THE THIRD DIMENSION IN MONOCULAR VISION.

BY C. STANILAND WAKE.

In an article in the August number of the *Revue Philosophique*, M. Alfred Binet mentions a curious phenomenon which he refers to as "the perception of the third dimension in monocular vision." By chance one day he discovered that on looking with one eye only at a photograph the relief is much more apparent than when both eyes are used for the purpose. In the former case the foreground of the photograph appears to rise from the paper and to be located in space. When the other eye is opened the foreground recedes and the picture appears flat. On submitting it to a number of other persons, all but three or four at once recognised the relief when the picture was looked at with but one eye.

M. Binet in seeking an explanation of this phenomenon questions the correctness of the assumption that the two visual axes cease to converge when one eye is closed, from which it might be inferred that the flatness of surface apparent when both eyes are used would disappear with one eye closed. As a fact the relief is just as apparent if the second eye remains open and a screen is placed between it and the picture,

as well as when observed with both eyes while squinting. He refers to the dissimilarity of images as a second possible explanation of the appearance of relief. The photograph seems to be flat because the two retinal figures it produces do not present the degree of difference which exists when a body of three dimensions is looked at. On closing one eye this exception to the general result of the use of double vision no longer operates, and an image is obtained which is not opposed by another image too much resembling the first.

The explanation of the phenomenon proposed by M. Binet himself is, that the monocular image is due to the operation of the law, the like appeals to the like, that is, like states of consciousness attract and unite with each other. In this case the monocular image gives the impression of relief by appealing to our earlier experiences, while the addition of the second similar image destroys the effect, annihilates the appearance of relief, prevents the first image from producing all the consequences that it includes. This singular phenomenon of inhibition produced by the like on the like seems to restrict the generality of the above-mentioned law, and shows that there exists a cause of systemization of states of consciousness which is at once more general and more powerful.

M. Binet states truly that the phenomenon he describes is so apparent that it must have been previously observed. As a fact, the present writer has noticed it for many years past and thought that it must have been observed by scientific enquirers, although it was not described in any publication he had met with. As may be inferred from M. Binet's description, the effect of relief may be obtained equally with other pictures besides photographs, by looking at them with one eye closed or covered over. There is, however, a reason why the effect should be more evident with a photograph than with an ordinary picture. The image impressed on the photographic plate is formed by the light rays reflected not merely from the surface but from the sides of the object; that is, the rays are reflected not from a plane, but from a curved surface. The completed photograph, therefore, possesses within itself all the elements of relief. In the stereoscope two pictures taken from different points of view are united in one figure to give the raised effect. But the same effect is produced by looking at a single photograph through an ordinary lens, and it is due not to the lens, which merely magnifies what already exists, but to conditions existing in the photograph itself. In fact, the picture already contains in itself the elements of the third dimension which the lens merely makes patent, and which must therefore under proper conditions become patent to the eye without the lens. These conditions are obtained by closing or screening one eye, from which it is evident that the use of both eyes

interferes with the natural effect. This it can do only by preventing the elements of the third dimension existing in the photograph from revealing their presence; possibly due to the fact that the two images do not coalesce into one, but are merely superimposed, the extremely refined elements of the third dimension which exist in each image being thus obliterated.

The perception of relief on looking with one eye only at other pictures is to be traced to the same source as that which gives rise to that phenomenon in connection with photographs. This is due to what may be called *latent perspective*, and it will be found that just as far as this quality exists in engravings and other pictures will the effect of relief be produced in monocular vision. The beauty of a picture depends largely on the perspective put into it, and this depends not only on "distance," but on *chiaroscuro* or light and shade, which gives depth to the objects in the picture and therefore to the picture itself. This is not so noticeable in a small picture as in a large one, such as an ordinary oil painting, but the same rules apply to both, and the use of a monocular lens to heighten the effect of oil paintings has long been in use in picture galleries. A lens is necessary, however, only to give a magnifying effect, as the idea of relief is fully obtained by the use of a simple tube, which may be formed by the curving of the fingers and thumb of the hand.

If the above explanation of the phenomenon in question is correct—and it appears to be supported by the experiments of Professor E. Mach—the appearance of relief in monocular vision and its loss on the use of double vision have a physical basis in the picture itself, and therefore it is not necessary to have recourse to the psychological law referred to by M. Binet.

THE QUESTIONS OF AGNOSTICISM.

THERE are questions that rise unasked; they obtrude upon the human mind and cannot be banished, because they lie in the nature of things. These questions so long as they remain unanswered, will cause an unrest in our soul, a spiritual thirst that can only be quenched by the spiritual waters of life—by truth and by a joyous submission to truth; they will appear as a strong and unsatisfied yearning for something that will afford help in time of need, and that shall bring light when we sit in darkness.

This dearth of peace of soul has created religion, it has created the great cosmic ideal of mankind, the idea of God as the Lord who made heaven and earth, who will be our keeper and who will preserve our soul. This dearth found expression in David's psalm:

"As the hart panteth after the water brooks, so panteth my soul for thee, O God.

"My soul thirsteth for God, for the living God; when shall I come and appear before God?"

"My tears have been my meat day and night, while they continually say unto me, 'Where is thy God?'"

Our world-conception has greatly changed since David's time, and together with it our religious views have been modified. But the same yearning obtains for peace and soul; because according to the nature of things the same questions rise again and again, sternly demanding to be answered.

The same anxiety as in David's psalm pervades a communication presented to me some time ago, which in accordance with the spirit of our age formulates the thirst of the soul for a satisfactory solution of the eternal problem of life in definite queries. The letter is characteristically signed "Agnostic," and reads as follows:

"Will you kindly answer the following questions? The future of religion depends, it seems to me, on the answers given.

- 1) Has the universe an ethical purpose or tendency?
- 2) Have we any reason to believe that anything corresponding to human life, feeling, or intelligence, exists now in other parts of the universe, or will come into existence again, after the destruction of the earth?
- 3) Are there any grounds for hope that pain will be diminished and pleasure increased, to any great extent, in the future of humanity?
- 4) According to the doctrine of Evolution, will not the earth and the whole solar system, in the distant future, become, once more, a mass of homogeneous vapor, destitute of life, as the term 'life' is generally understood?
- 5) If the universe is an infinite machine, which mercilessly crushes between its cogs, not only the individual, but eventually the race, must not the contemplation of the universe awaken feelings of melancholy and despair in the human heart? And are not such feelings destructive to religion and ethics?"

* * *

This is an age of eager research. Wheresoever we look, we find unanswered questions; and many people shrug their shoulders in despair, because they do not expect that these questions will ever be answered. Such people call themselves agnostics.

There are three attitudes of agnosticism. There is, first, the agnosticism of indifference. This is the position of those who do not wish to be bothered with questions which they feel incompetent to answer and which they generally care nothing about. The agnosticism of indifference is passive; it is a philosophy of indolence, which boasts of depth where because of its own littleness it has not found bottom.

The second kind of agnosticism is an agnosticism of despair. It is the agnosticism of "world-pain," and has been characterised by Heinrich Heine in the following lines:

"By the sea, by the desolate nocturnal sea,
Stands a youthful man,
His breast full of sadness, his head full of doubt.
And with bitter lips he questions the waves:
Oh solve me the riddle of life!
The cruel, world-old riddle,

Concerning which, already many a head hath been racked.

Heads in hieroglyphic-hats,

Heads in turbans and in black caps,

Periwigged heads, and a thousand other

Poor, sweating human heads.

Tell me, what signifies man?

Whence does he come? whither does he go?

Who dwells yonder above the golden stars?

The waves murmur their eternal murmur,

The winds blow, the clouds flow past,

Cold and indifferent twinkle the stars.

And—a fool awaits an answer.*

There are men of great talents who have grappled with the questions of the day, yet have failed to solve them. They feel their labors lost and their energy, spent in thought, wasted. But because a genius has failed to solve a problem, is it really absolutely insolvable? And if it is absolutely insolvable, would it not in that case be a pseudo-problem? A pseudo-problem is a question which is formulated on a misconception of facts; it is unanswerable because it is misstated. The problem of existence is unanswerable perhaps, not because the world is out of joint, but because the position of the questioner is wrongly taken.

The third kind of agnosticism is the agnosticism of science. We might call it with equal appropriateness either the agnosticism of ignorance or the agnosticism of wisdom. For it is a wise confession of ignorance. This confession is not made in general terms, that science is vanity and that all philosophy is trivial. Such general statements have no meaning, except that they place the sage and the fool upon the same level. The agnosticism of ignorance is the agnosticism of science. It is an active attitude of agnosticism. It states definitely a special ignorance of ours, and formulates it in exact terms.

The statement of such a specified ignorance is called a problem, and although it may sometimes be extremely difficult to solve a problem, the agnosticism of science never despairs of a final solution. On the contrary, every problem is formed with the outspoken hope that in the end, it will be solved. The history of science is a continuous conquest of the hydra-like growing heads of the agnosticism of science.

* * *

There are certain questions—viz., the moral questions—the nature of which is such as to demand an immediate answer. "What are the rules of conduct? and what are the notions according to which we have to form these rules of conduct?"—are questions that are urgent. We live and act; and we cannot wait until science has settled all the problems the solution of which in this or in that way might influence our actions. We have to act as best we can. The notions in agreement with which our whole demeanor has to be regulated, are called "religious"; and it is natural that religious ideas through their extraordinary prac-

tical importance are of an extremely conservative nature. They are laid down as the most sacred possession of mankind, the holiest heirloom received from our ancestors. This conservatism is natural, but it will become dangerous if it prevents the revision of religious ideas through the best, and truest, and most earnest critique that can be furnished by science. It will become detrimental if it produces thoughtlessness, and makes a generation accept without critique whatever it has been taught to believe.

It lies in the very nature of religious problems that they must be solved again and again. Every one of us has to solve them for himself as best he can. It may be stated parenthetically that most religions are creeds; but they need not be creeds and the Religion which we advocate is the Religion of Science.

The questions proposed by Agnostic are in their nature religious questions, and we answer them very briefly as follows:

1) "Has the Universe an ethical purpose or tendency?"

If this question is to be answered by Yes or No, we should say, Yes—the universe has an ethical tendency. But it must be borne in mind that this way of putting the question is incorrect. We should ask whether the universe has any definite tendency, or whether it has no definite tendency whatever, without calling its tendency either moral or immoral. If the universe had no definite tendency it would be no universe, no unitary world, no cosmos, but a jumble of incoherent events, a chaos, a labyrinth of heterogeneous things, a confusion without rhyme or reason, without law or order. Our answer to this first question is, that the universe *has* a definite tendency, and morality means agreement with this tendency.

2) We have reasons to believe that on other planets and in other solar systems, there is something corresponding to human life, to feeling, and to intelligence. For philosophical considerations teach us, and science corroborates it, that the evolution of the human race, the feeling of animal life, and the intelligence of rational beings have developed with necessity upon earth in rigid accordance with natural laws. Is there any doubt that the same conditions in other parts of the universe will produce the same results, and similar conditions similar results? When we analyze the stars with the assistance of the spectroscope we find there the same material elements as upon the earth. Can there be any question as to our finding everywhere the same laws and the same tendency of evolution? Other races on other planets may have very different constitutions; winged animals of the air or swimming animals of the sea, bipeds or quadrupeds, mammals or insects, carnivorous or herbivorous, or any other kind of creatures might develop into think-

* Translated by Emma Lazarus.

ing beings; yet it is certain that among all rational creatures, there would be at least in all fundamental features the same logic, the same arithmetic, the same mathematics, and above all the same logic of action, viz., the same ethics.

3) There are grounds for hope that pain will be diminished in life and that the nobler and more refined pleasures will be constantly increased. But considering that pain is either the result of unsatisfied wants or due to some other disturbance in life, we must bear in mind that the creation of new wants which arises through progress, will produce new pains to the same degree as it will produce more refined and nobler pleasures.

Are we not sometimes too weak-hearted with regard to our pains? Are not the causes of our woes mostly of a trivial nature? Look at them from a higher standpoint and they appear like the baby's tears over a broken doll. And if they are not trivial, if they are not the woes of the individual, but of the aspiring race, are they not far from being merely lamentable? Are they not in such a case sublime? Are they not transfigured by their sacred purpose, and must they not appear as grand as are the struggles, the anxieties, and the sufferings of a hero in a tragedy?

Let us consider pleasure and pain not from the standpoint of sentimentality but from the higher standpoint of ethics, where the individual as such disappears, where the individual's worth is measured according to his breadth of mind, and where life is valued not according to the pleasures it affords, but according as it contains more or less of those treasures that "neither moth nor rust doth corrupt."

As to the fourth and fifth question, we should say:

This planet of ours together with our solar system may, and we have indeed reasons to believe that it will, break to pieces. Yet the conditions which produced not only our solar system, but also mankind and human civilization, will not cease to exist. They will continue to exist and will produce, in fact they are constantly producing, new worlds out of the wrecks of the old broken ones. If a man dies, we lament the loss; we weep for the friend, the brother or the father. But the loss is not so much his; it is ours. If our world breaks to pieces it will be a loss—a lamentable loss. But will it be a loss to mankind? It will be a loss in the universe, which, however, as we can fairly suppose, will be made up by other gains.

The universe is *not* "an infinite machine, which mercilessly crushes between its cogs not only the individual but eventually the race." The universe is infinite and inexhaustible life. Whatever life of organized beings, of individuals, of entire races and of entire solar systems may disappear in one part, there is a probability, practically amounting to certainty,

that in other parts new life will originate to compensate for it.

Life on its highest stage means action and action means performance of duty. Man is an ethical animal, which means that he has come to understand certain important features of the tendency prevailing in the universe. It is the performance of duty in past generations which has raised mankind to its present eminence.

The world is throughout a field of ethical aspirations. If our life ceases, if our planet breaks to pieces, the immutable laws of nature will remain the same. Humanity may be wiped out of existence, but those realities which created humanity and in consonance with which man's ethical ideals have been shaped will remain. We read in the New Testament that Heaven and earth may pass away, but the word of God abideth forever. The Religion of Science recognizes the truth of this biblical verse, although it does not accept it in the narrow interpretation of theistic theology.

CURRENT TOPICS.

KITE-FLYING is an exciting sport for boys, and sometimes when the competition is keen, the kites themselves appear to strive with intelligent emulation to "soar" above each other into the "blue empyrean" where the "celestial spaces" are. Oratorical kite-flying is equally ambitious, and just as entertaining in the proper season, which in this latitude is when the state legislature meets to elect a Senator. Rarely in Illinois has rhetoric "soared" higher than it did last week, when the kite-flyers in the legislature nominated their candidates for the national Senate. Rarely have candidates been shampooed with such foamy and aromatic suds.

There happened to be three senatorial candidates this time, and strangely enough, two of them appeared to be aspiring persons unknown to the legislature; consequently it became necessary to give a luminous and voluminous account of who they were, and whence they came, the biography of each beginning at about the age of fourteen years, when they started from home on foot, as one of the kite-flyers expressed it "for the setting sun," neither of them having perseverance enough to reach it, but both stopping in Illinois. With affected surprise as if they had never heard of them before, the attentive members learned that neither of the candidates had been in Illinois much over fifty years; that both of them had been Governors, both Major Generals, and one of them United States Senator years and years ago. The third candidate needed no biography, and so his champion just ironically remarked that "although comparatively unknown in mutual-admiration societies of this country his name was a household word among the millions." The ingratitude of republics was again manifested when the statesman and patriot whose name was "a household word among the millions" was left away down at the bottom of the poll.

There is not in the schoolbooks such a glowing tribute as the following bit of hyperbolic moonshine into which one of the proposers dragged his candidate, one of those men "who in the dark night of fraternal strife and partisan prejudice shine like the nocturnal lamp of heaven with solitary and serene lustre; obscured by the gathering clouds of partisan malice; unseen through the voluntary blindness of party interests; at times almost extinguished by political bigotry, but at length bursting through every

obstacle and reflecting a steady light upon those labyrinths of false theories of designing politicians which unrestrained must eventually lead mankind backward into slavery." Waiving the mixture of metaphor, and the slight overcrowding of adjectives, nothing could be happier in gush and gurgle than this comparison of the candidate to "nocturnal lamp of heaven." If elected, the lunar beams radiating from his countenance when at the full, will cheer and illuminate the senate.

While one kite-flyer was comparing his candidate to the moon, another was comparing the rival nominee to a dazzling constellation "a typical American whose brilliant intellectual powers are no more dimmed by time than are the stars of heaven; who stripped of every vestige of political or official raiment stands out in the clear bright sunshine of the noon day. There is none more worthy to contend with the Goliath of the democracy for the right to wear the royal senatorial wreath, than this David of republicanism." The prize for flying the highest kite was given to this particular orator, who by the way, was a colored man; and it was conceded by all the judges that such a remarkable phenomenon had not been seen for thirty years as this conspicuous candidate "stripped of every vestige of political or official raiment standing out in the noonday sun," while the comparison of such a venerable public servant to the stripping David the son of Jesse was in the highest style of biblical illustration.

The candidate of the third party was not presented for the support of the legislature on his own personal achievements, but as the enemy of "King Shylock," and the representative of the "honest, hard-banded, wealth-producing, tariff-ridden, monopoly-robbled, and usury-enslaved millions." Those compound adjectives though strong in sound, had no persuasive power, for the opponent of King Shylock received only three votes, while David got a hundred, and Goliath a hundred and one.

The "Silver bill" passed the Senate under whip and spur, the whip of the "Silver States," and the spur of the Farmers Alliance; it will probably pass the House under the same persuasion. The humor of it is that the Senate, although opposed to the measure, was driven to pass it by an outside pressure too strong for the Senatorial will. It was thus with the McKinley bill, when statesmen played the comedy of speaking against it and voting for it. They probably enjoyed the eccentricity like the dissolute nobleman who apologising to the king for opposing a government measure, said, "I have no principle myself, Sir; but I belong to a party that has a great deal." So with some of our statesmen; they had no faith in the bill, but they belonged to a party that had. If the salt-making states, complaining that the Atlantic ocean is too fresh, "therefore demand" the passage of a bill to re-salt it, our easy-going politicians will vote for the bill, appropriate money to buy all the salt in sight, and dump it into the sea.

The device of coin clipping is very old, probably as old as money; and it has been practised both by knavish subjects and dishonest kings. Coin clipping is a crime when done by private citizens, but statesmanship when done by governments. For centuries England suffered heavily from coin clipping, and there were two ways of doing it; the one mechanical, by chisel, file, or shaking in a bag; the other political, by act of parliament, or mandate of the king. The private citizen was hanged for clipping coins, the king never was. When the trick was done by governments, they generally got the benefit of the cheat. They were not so liberal as the American Congress, which kindly proposes to clip the silver coins one fifth, not for the benefit of the government, but for the advantage of a limited constituency, the special class who own the silver mines. To make eighty cents a dollar by act

of Congress, is to clip the value of a dollar down to eighty cents. Clipping the coin clips wages in proportion. Hume praises Queen Elizabeth because she restored the coin which had been debased by her predecessors; and yet Elizabeth herself could not resist the temptation to do a little clipping, when having the opportunity to coin some silver she made the pound of silver into sixty-two shillings, instead of sixty as the number formerly was. Although the sixty-two shillings would not buy any more goods than the sixty shillings did, they would go farther in paying debts and wages. To the full extent of coin debasement the laborer was defrauded of his hire.

A curious parallel to our scheme of making four dollars worth of silver into five silver dollars, was the Irish legislation by which the English government attempted to double the value of "Wood's halfpence." This notorious coinage was attacked by Dean Swift in his famous "Drapier's letters" and with such bitter sarcasm and invective that he made a revolutionary agitation which compelled the government to call Wood's halfpence home. It happened that there were not copper coins enough in Ireland to "satisfy the wants of trade," "to restore confidence," "to stimulate business," "to move the crops," "to lift the mortgage," and to perform the various miracles required of money, so the government proposed to issue so many hundred thousand pennies. The job of coining them was given to a patriot named Wood, a man who deserved well of his country as an active worker for the "party," and a hustler at the polls. Now, according to the price of copper "in the markets of the world," a pound of that metal could rightfully be coined into fifteen pennies, and no more, but there was a large "ring" formed around the contract and every member of the ring had to get a share of the profits. Therefore, to accommodate all hands the government issued its "fiat" that a pound of copper should be coined into thirty pennies, and it was so. Wood made thirty pennies out of a pound of copper, whereas only fifteen had ever been made before. Swift exposed the fraud in his celebrated "letters"; the ring was broken; the government drew back, compromised with Wood, and called the cheap money in. Sir Boyle Roche was laughed at when he introduced a bill into Parliament requiring that a quart bottle should hold a quart, but some day we shall see a bill in Congress requiring that every dollar shall contain a hundred cents. M. M. TRUMULL.

CORRESPONDENCE.

GEORGE HENRY LEWES ON CONSCIOUSNESS.

To the Editor of The Open Court:

In your issue of Nov. 20th, Miss Alice Bodington makes a reference to the late George Henry Lewes, in which—unintentionally of course—she seriously misrepresents the view which that philosopher held on the subject of Consciousness. She says: "More than a generation ago the late George Henry Lewes commented on the extraordinary fact, that the leg is drawn up when tickled, of a patient in whom the spinal cord is injured, and who is therefore unconscious of the tickling. Mr. Lewes declared that there must be consciousness in such a case or the leg would not be withdrawn." If Miss Bodington will refer to her *Lewes* she will discover that this is a statement which he would have strongly protested against, in fact, one of the chief aims of Mr. Lewes was to restrict the use of the word consciousness rather than to extend it. At page 133 of his *Problems, Third Series*, he says: "Whosoever reflects on the numerous ambiguities and misapprehensions to which the term Consciousness gives rise in philosophical discussions will regret that the term cannot be banished altogether. But since it cannot be banished our task must be to attempt to give it a precise meaning." It is obvious

therefore that he would hardly be likely to use the term in the sense which Miss Bodington says he does.

To try to make it clear in what sense Mr. Lewes did believe the word should be employed, it is necessary to consider the particular fallacy he was endeavoring to controvert, which was, "that the Brain and the Brain only is the seat of Sensibility," and that consequently the action of the rest of the Cerebro Spinal Axis was purely Reflex, Physical and Mechanical. Those who can call to mind the somewhat acrimonious controversies concerning Animal Automatism which took place some years ago, will remember that Lewes's polemic was directed against that theory. He also was among the earliest to declare the importance, and indeed the absolute necessity of combining the study of Physiology with that of Psychology, one of his doctrines being that Mind after all is but a special Mode of Life.

In 1859 Lewes enunciated his famous biological law, which has not yet obtained universal recognition. In reference to the Nervous Mechanism he maintained that "Identity of tissue implies identity of property, and identity of organic connection implies identity of function," and it is in reference to this "law" that Lewes himself stated "it was so little understood that it for the most part met with denial or silent neglect."

The bearing of this law on the problem of consciousness is easily seen; the central tissue throughout the whole Cerebro Spinal Axis is identical in structure, hence it is identical in property, this property being Sensibility, but says Lewes, "to admit that all nerve centres have a common property, and that their functional relations depend on their anatomical relations, is to sweep away a mass of theoretic interpretations which from long familiarity have acquired almost axiomatic force."

"Dr. Hunter's patient on being asked if he felt any pain when the prick caused his leg to kick, answered, 'No, but you see my leg does,' and Lewes adds, Now, when a man has a diseased cord, the seat of injury causes a division of the whole group of centres into two independent groups, his nervous mechanism is cut in halves. How then can any cerebral control be obeyed by his legs, how can any impression on his legs be felt by his cerebrum?"

"It is true," he says further on, "that the man himself when interrogated declares that he feels nothing; the cerebral segment has attached to it, organs of speech, and expressive features by which its sensations can be communicated to others; whereas the spinal segment has no such means of communicating its sensations; but those which it has it employs." . . . "The question we have to decide therefore is, not whether a patient with an injured spine can feel impressions on, or convey voluntary impulses to limbs below the seat of injury—for as respects the nervous mechanism these limbs are separated from him no less than if actual amputation had taken place—the question is, whether these separated limbs have any sensibility? And the answer seems to me unequivocally affirmative. I assert therefore that if there is ample evidence to show that the spinal centres have sensibility when separated from the cerebral centres, such evidence can in no sense be weakened by the fact that a man with an injured spine is unconscious of impressions made below the seat of injury; such a fact follows necessarily from the establishment of two centres."

Now while Lewes affirmed the existence of sensibility in the lower half of the injured spine, he was strongly opposed to the assumption "that this sensibility is the equivalent of consciousness." He says: "The manifest advantage of thus restricting the term conscious state to the activity which is salient and discriminated is, that it extricates us from many contradictions and confusions."

I think Miss Bodington will perceive that whatever may be said to be proved concerning the existence of "other conscious-

nesses beside the "dominant Ego." Mr. Lewes can hardly be appropriated as an authority in favor of any "Hidden Self." In fact by her endeavor to increase the number of consciousnesses she is really endeavoring to increase and perpetuate a source of ambiguity and confusion which Lewes was desirous to banish or restrict.

J. HARRISON ELLIS.

BOOK NOTICES.

"Marriage and Parentage, and the Sanitary and Physiological Laws for the Production of Children of Finer Health and Greater Ability" (M. L. Holbrook & Co., New York, 1888), recently received, is apparently a sensibly written book, containing much practical and salutary advice. The author's name is not given.

"The Auroraphone," by Cyrus Cole, (Chas. H. Kerr & Co., Chicago,) is a romance in which telegraphic communication is established with the planet Saturn by means of a Jules-Vernes instrument called the Auroraphone. A medium is thus afforded for the expression of ideas with regard to which it is difficult to say whether they are meant to be taken in a Saturnian sense or a terrestrial one. The philosophical ideas imparted certainly do possess the characteristics of Saturninity. However, the incidents of the novel are necessarily of interest and form a good setting for the presentation of opinion.

We have received the first number of *The Bacteriological World*, (formerly noticed,) which has for a frontispiece portraits of the well-renowned bacteriologists Prof. Robert Koch and Dr. Louis Pasteur. Editor Dr. Paul Paquin of Missouri State University gives the first part of his "Lessons on Bacteriology." Two thousand copies of the first issue have been reserved for distribution to subscribers and others during the months of January and February. (T. J. Turner, Mexico, Mo.)

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HALLUCINATIONS AND ALIENATION OF PERSONALITY.*

BY TH. RIBOT.

Hallucinations form a natural transition from perceptions to ideas, and the part played by them is of great interest. At the outset let us recall to mind a few general points regarding the hallucinatory state. Four hypotheses have been advanced to explain it†: 1. The peripheric or sensorial theory, which places the seat of hallucination in the organ of the senses. 2. The psychic theory which localizes it in the centre of ideation. 3. The mixed or psycho-sensorial theory. 4. The theory which attributes hallucination to the perceptive centres of the cortical layer.

Observation teaches us that hallucinations sometimes affect one sense only, and sometimes several senses; that most frequently they extend to both sides of the body, but occasionally to one side only (right or left, indifferently); still more rarely, they are bilateral, yet presenting a different character on each side; thus, whilst one ear is assailed by threats, injuries, evil counsels; the other is comforted by kind and soothing words; one eye perceives only sad and repugnant objects, the other beholds gardens rich in flowers. These latter cases, being at the same time bilateral and opposite by nature, are to us the most interesting.

Happily, in this immense domain, we have only to explore a very small area. Let us carefully limit our subject. In the normal state the feeling and thinking individual is entirely adapted to his surroundings. Between the group of states and of internal relations which constitute the mind, and the group of states and of external relations which constitute the external world, there is a correspondence, as Spencer has minutely shown. In the case of the hallucinator this correspondence has been destroyed. Hence, false judgments, absurd acts, that is, incongruous and unfitting acts. Still, all this constitutes a disease of reason and not of personality. Undoubtedly the ego is dethroned; but so long as the consensus which constitutes it has not disappeared, is not split in two, or has not alienated a

part of itself, (as we shall see again) so long will there not be any disease of personality in a proper sense; the derangements will be but secondary and superficial. Consequently, the immense majority of cases of hallucination are withdrawn from our consideration.

Nor have we, moreover, either to occupy ourselves with that numerous category of patients, who misjudge the personality of others, and who take the physicians and attendants of the asylum for their own relatives, or their relatives for some imaginary persons in some connection with their delusions.*

Having made these eliminations, the cases to be studied become sufficiently circumscribed, since they are reduced to changes of personality the basis of which is hallucination. There is here almost always an *alienation* (in the etymological sense) of certain states of consciousness, which the ego does not consider as its own, but makes objective and places outside of itself, and to which, ultimately, it attributes a distinct existence yet independent of its own.

As regards the sense of hearing, the history of religious mania furnishes numerous examples. I shall quote the most ordinary cases; namely, those in which at first the hallucinatory state acts alone. A woman was persecuted by an internal voice, "which she heard only within her ear," and which would rebel against whatever she wished. The voice always incited evil when the patient wished for good. Without being heard externally, the voice would call to her: "Take a knife and kill yourself." Another hysterical patient originally had thoughts, and would utter words she had no intention of saying, and soon would express them in a voice that differed from her own. This she heard only made indifferent or rational remarks; afterwards it assumed a negative character. "At the present time, after thirteen years the voice simply verifies what the patient has just said, or comments upon her words, criticizes them, turns them into ridicule. The tone of this voice, when the mind speaks, always differs a little, and sometimes entirely from the ordinary voice of the patient, and this is the reason why the latter be-

* Translated from the French (*Diseases of Personality* Chap. III. (1.) by Y. G.

† For a complete exposition of the question, see the important articles of M. Binet, *Revue philosophique*, April and May, 1891.

* To some patients, the same individual is, by turns, transformed into an imaginary person and maintained in his real personality. A woman at times recognized her husband, and at times took him for an intruder. She had him arrested, and he had great difficulty in establishing his identity (*Magnan Clinique de Sainte-Anne*, Feb. 11, 1877).

lieves in the reality of this mind. I, myself, have frequently observed these same facts.*

As regards sight, alienations of this kind are less frequent. "A very intelligent man," says Wigan (p. 126) "had the power of putting his *double* before himself. He used to laugh loudly at this double, which would also laugh in return. For a long time this was a subject of amusement to the man; but the final result proved lamentable. By degrees he became convinced that he was being haunted by himself. This other ego taunted him, worried and mortified him incessantly. In order to put an end to this sad existence he arranged his private affairs, and, being loath to begin a new year, on Dec. 31, at midnight, he shot himself in the mouth."

Finally Dr. Ball in *L'Encéphale* (1882, II.) reports the case of an American, who, through simultaneous hallucinations of hearing and sight, possessed in all its features an imaginary double. "Prostrated by a sun-stroke, he remained unconscious for a month. Shortly after recovering his senses, he heard a distinctly articulated human voice, which said: 'How are you?' The patient answered, and a short conversation was begun. On the following day the same question was repeated. The patient looked around but saw no one. 'Who are you?' said he. 'I am Mr. Gabbage,' answered the voice. A few days later the patient got a glimpse of his interlocutor, who from that time presented himself with the same features and in the same dress; he would always appear in front, showing only his bust. He had the appearance of a vigorous and well built man of about thirty-six years, with a strong beard, dark-brown complexion, large black eyes, strongly penciled eye-brows, and was always dressed in hunting costume. The patient would fain have known the profession and habits of his questioner and where he lived; but the man would never consent to give any other information than simply his name." At last Mr. Gabbage grew more and more tyrannical: ordering the patient to throw his newspaper, watch and chain into the fire, to take care of a young woman and her child whom he had poisoned, and eventually to throw himself through the window of a third floor, whence he fell and was killed upon the pavement below.

These facts show us a beginning of *dissolution of personality*. In another article we shall cite cases not having hallucination for their basis, which will enable us to better understand those already referred to. That more or less perfect co-ordination which in the normal state constitutes the ego, is here to a certain extent broken. Within the group of states of consciousness which we feel as our own, because produced or experienced by ourselves, there exists one,

which, although having its source in the organism, still does not enter into the consensus, but remains apart and appears separate from it. In the order of thought this is the analogue of irresistible impulses; in the order of action, a partial incoördination.*

These voices and visions emanate from the patient himself; why then does he not regard them as his own? This is a very obscure question, but I shall attempt to answer it. There must exist here anatomical and physiological causes, unfortunately at present unknown, the discovery of which would solve the problem. Being ignorant of these causes, we are restricted to the consideration of the surface, the symptoms, and the states of consciousness with the signs that reveal them. Let us, accordingly, suppose a state of consciousness (with its organic conditions) having the characteristic of being local, that is of having in its physical and psychic organization the weakest possible radiation. In order to make myself understood by way of antithesis, let us suppose any violent, sudden emotion; it resounds through the whole system, shakes completely the physical and mental life; it is complete in its diffusion. Our case is exactly the reverse of this. Organically and psychically it has only rare and precarious connections with the rest of the individual; it remains apart, like a foreign body, lodged within the organism, but having no share in its life. It does not enter that great woof of *cœnesthesia* which sustains and unifies everything. It is a cerebral phenomenon almost without support, analogous to the ideas that are imposed by way of suggestion in hypnotism. This attempt at an explanation is corroborated by the fact that any morbid state—if it be not arrested by nature itself or by medical treatment—has a fatal tendency to increase and expand at the expense of the primitive personality, which, attacked by this parasite, diminishes. Still, in this case it preserves its original mark, and does not constitute a duplication but an alienation of personality.

I only offer this attempt at an explanation as an hypothesis, being perfectly convinced that our present lack of knowledge of the organic conditions of the phenomenon precludes the possibility of a satisfactory diagnosis. In submitting this explanation I have been compelled to anticipate what will be said in a subsequent article with reference to ideas, and which, perhaps, will furnish us with new arguments in favor of that hypothesis.

[TO BE CONTINUED.]

THE CHEMISTRY OF PLEASURE.

BY J. C. F. GRUMBINE.

It is hardly possible that the use of the word chemistry in the sense in which it will be used will deviate very widely from the scientific application of it.

* Griesinger, *Maladies Mentales*. French Trans., p. 285-286; Baillarger reports an analogous case, *Annales Médico-psych.*, 1st series, Vol. VI, p. 151.

* Concerning irresistible impulses considered as a phenomenon of partial incoördination, see my *Maladies de la Volonté*, p. 71 and following.

It is true that chemistry does not usually deal with such evanescent and indivisible subjects as pleasure, for it may be argued and rightly that pleasure is not a substance, and hence it cannot properly be catalogued among the things which chemistry analyzes and defines. Pleasure, however, is that which is so closely associated and bound up with so-called material things—it is an effect produced so far as we know altogether within the sphere of sensuous life and in the domain of natural causation that an understanding of its nature and object may well be worth our attention. And when it is known that it is not only an end of life as the Epicureans and even the Stoics maintained—is, indeed, the one quality or effect of life which makes existence bearable as Christianity, and all ethnic religions allowed, but it is the flower of all toil and that which underlies the entire fabric of human culture and civilization, it becomes a theme of very great importance.

Pleasure is sensational, intellectual, psychical. It is an effect of conduct. It is differentiated in quality only as one kind of conduct varies from another kind. It is the product of the use of the functions of life.

Pleasure is not always a safe guide to right action. Like arsenic, which is sweet, and, indeed, a most admirable tonic to the nervous system, especially in combinations with other and similar drugs, it has a danger point, for as neither the sweet taste of arsenic nor its restorative or exhilarating qualities are all that there is to it, so the delicious sensation is not all there is to pleasure. It has a mission which not only its name suggests but which is educative. Like the sunlight it belongs to no special class of people and like gravity, it is inseparable from life itself. It comes to the poor in the hovel and to the rich in the palace. It follows the vagabond in his journey and goes with the prodigal to the habitation of the swine. It is man's friend when even his father and mother prove an enemy. It goes with the exile into Siberia and flies with the criminal to foreign lands. The fact is, it belongs to every plane or grade or state of being. It is sensational in that it is the result of the use of the senses as comprehended in the physical organism. It is intellectual in that it is the result of the use of the intellect as defined in intellectual pursuits. It is psychical in that it is the result of a rational or moral use of life in every possible direction.

Pleasure has been defined as that which is produced primarily in the sphere of the senses while happiness, joy, peace, comfort, felicity are synonyms for that which is produced in the intellectual and moral sphere of being. Both pleasure and happiness are mental because they are only known or realized in consciousness.

The right use of the senses may, all other things

being equal, insure man health, and thus he may have a sound mind in a sound body. A perverted or wrong use of the senses will lead to an unsound mind in an unsound body. Mark Hopkins, a deceased president of Williams College, maintained in his Mental Philosophy that the mind and body are related to each other as the conditional and the conditioned. The right use of the latter, conditions the healthy activity and normal state of the other, so that a man who is intemperate in any sense of the word effects the value and use of the mind. For it is reasonable to suppose that although there are functions in the body which are not altogether governed by the human will, yet the mind is or should be the guide to all action. It should dictate or decide whether ice water and ice cream, new vegetables or gross meats are healthy, and it, instructed by the experience of man in all ages, should be the arbiter in the choice of all food and drink. Hence one of the dangers associated with the physical life is the attempt of man to get pleasure in excess, and license in indulgence and in dissipation, without regard to inevitable consequences, and many to-day, therefore are reaping a whirlwind, the powerful motion of which was spun far back in the lives of their ancestry. Hence there are those whose minds are harassed with acute pain or give way and become insane because of the abuse of the physical organism.

Further, a valuable equation in the conduct of man may be noted. *His pleasure is to life what his conduct is to the law of his being.* It matters not whether a man, like a barbarian, lives on the lowest plane of life or not, the method for obtaining pleasure is the same. If he desire permanent and aggressive pleasure and the greatest amount of it he must use life rightly. For abuse means not only a wrong use but an over-taxing of the function of life, as for example, the perversion of the sense of sight and the eye by staring at the sun. Pain is the monitor which warns us against abuse.

Now, the object of pleasure is to please or make happy, as the object of pain is to afflict and make miserable, yet the two are so closely associated that there is, in the last analysis, little if any difference between them. For the one is often imperceptibly blended into the other, as tears are with smiles. The object of the one is the object of the other.

Pleasure is represented by Heine, the great German poet, as Lorelei, and the figure is borrowed from the Greeks who looked upon pleasure to some extent, as a siren that leads a man to destruction by a lovely face, a beautiful form or a ravishing song. For a man is apt to become enamoured of pleasure only, as Venus was with her beauty and to forget the truth of the adage that there is a way which seems right, but the end is the way of pain. He may become so in love with it that he may ignore the very law for keeping it,

and like Belshazar, the Persian king, at his feast he may allow himself to become enslaved by it, and while powerless to help himself, see his empire slip out of his hands forever.

The apology of Eve for sin cannot be made man's apology for it to-day. Were mankind without knowledge or experience he might well condemn the alleged cruel order of the universe in which he lives. For in this age a thousand angels come to him to teach him the way of life and to lead him into Paradise. He thus becomes in a measure his own enemy if, having access to knowledge and experience, he refuses both for egotism. Science, not pseudo-science, maintains that the chances of man in this world for obtaining pleasure are greater than for pain so it can be said that *man's pleasure is to pain what two is to one*. This may be taken as the fixed law of the universe, and why should it not be if as religion affirms, the nature of God is love?

If a man uses his body well he will escape much pain, and be qualified to receive the difference of pleasure. For it stands to reason that as a man decreases the possibility for getting pain he increases the possibility of obtaining pleasure. Righteousness is the law which should guide us in all we do. It is easily and clearly seen that, given a certain plane of life, a man's hope of future happiness depends not upon his getting all the pleasure he can out of his conduct while on that plane, but of availing himself of the wisest and right use of his life there, as that use is related to his life on another and higher plane—in short, to build in his early years with granite durability, the right kind of a foundation upon which to place the life which will rise upon it, as the building not made with hands eternal in the heavens. For as Michael Angelo, or Raphael, or Turner or Murillo became artists by the same process through which all who have talent in art must go, in learning to draw and color, if they aspire to eminence, so through a like method of training we must go to become that for which we by virtue of our being have been intended. And as man shirks or shrinks from the performance of duty now, or the doing of a work which will make him great or successful in that which he would accomplish, as for instance a boy at school allows a companion to work out for him a problem in geometry or algebra, just in that measure his life will be a disappointment and he will receive the minimum of pleasure. As the poet wrote—*Sic gloria transit mundi!*

The design of the universe, so far as human destiny is concerned, is to afford man the maximum of pleasure with the minimum of pain. When separated from the theological idea of life, that which is called history, experience and civilization, means so much pleasure or pain. When measured by wisdom, human

achievements count only as they yield man the greatest amount of pleasure. The allegory of life is the same whether it is Alexander seeking to win Paradise by piling conquered worlds upon each other, or a mere child finding its joy in marshalling tin soldiers for battle. One pathway leads through the history and conduct of life. Like the needle on the compass, the nature of things decides its unchangeable direction. Whether man's aim in life is to obtain holiness or that which holiness gives, the way to both is the same. Whether our lot is to pass through poverty and folly, or through riches and knowledge, the end of conduct is the same.

It is possible that what are called the irreconcilable facts of life are nothing more or less than the inevitable which defines and qualifies our joy. For it is often found that a man's early history, even though one of hardship and struggle, proves to be the direct cause for his future success; as perhaps Abram Lincoln's experience in the woods of Illinois, and Garfield's conduct along the tow-path of the Miami canal paved the way for or led to the building of the character and life necessary for the positions which they filled in the government of this country. The work and conduct of Paul, the apologist and the tent-maker, and of Jesus, the teacher and the carpenter, are so closely associated individually that that of the latter, however much it may have diverged from that of the former, had in it the element or force which molded and unfolded all the glory and the power of their lives. Indeed what are usually called the irreconcilable facts of human life are after all but a *false generalization*. For take the three facts which, as Tolstoi remarked, stand pre-eminently and boldly forth as seemingly unnecessary evils, viz., pain, poverty, and fear, and are they not in reality as much a part of life itself as their opposites and would the world be what it is without them?

The question is not whether man wishes life without pain but whether he wants to possess life as it is or not possess it at all. If a man covets the sea he must not complain of its storms and icebergs and sharks. If he desires riches he must be content with all that it places at his door. If he is poor he must struggle through or out of his poverty, if he dislikes it, into a more congenial state, or if he cannot do this, he must study how to get the most of joy out of it. And herein man is apt to err in his estimate of the plane of life upon which his fellowmen should be, and at this point the dreams of the social-reformers and political economists disappear as the "baseless fabric of a vision"—for the creed of egotism is not the divine standard for measuring human joy. Because ten men love wealth or leisure, or books, or travel and find in these possessions that which makes life dear

to them is by no means either a proof or an argument that ten other men who possessed them not, ought and should have them to obtain their joy. Imagine all men as having leisure, as reading books, as traveling, as possessing riches—how very uninteresting life would be, yet such is the idea of heaven, which dominates much of the thinking of the Christian Church. It must be said in criticism of this erratic position that the soul will never be satisfied with any addition to its splendor such as is here implied and that any method of furnishing it pleasure other than the one, which prevails in society to-day, will prove to be a permanent blessing to mankind.

THE CONVENTION OF THE ANIMALS.

A FABLE.

BY * * *

A LONG, long time ago, the animals convoked a general congress. Their idea was to get together at some convenient place and to determine, in parliamentary conference, which was the greatest, best, and noblest creature of the animal kingdom. If a decision could be arrived at on this point, it was plain that it would be the easiest thing in the world to set up an ideal which all animals could strive to realize. They would then know how a model animal really looked and acted.

So the animals assembled. Amid the enormous multitude attending, were to be seen, the Lion, the Tiger, the Elephant, the Fox, the Badger, the Eagle, the Bat, the Crocodile, and also Man and the Monkey. These, so to speak, were the aristocracy; but of course there were countless hosts of other and lesser creatures present.

The Convention was called to order by a trumpet-blast from the Elephant. The Giraffe, who towered high above all the other animals, was chosen president of the assembly by acclamation. Immediately the Fox jumped to his feet, to take exception to this proceeding. Said he:

"Gentlemen! If we elect the Giraffe president of this Convention, we shall, in so doing, irrevocably commit ourselves to the position, that height and size of body are the decisive factors in the great question we have here convened to settle. Did we assemble here to decide which was the tallest, or which was the greatest animal? No. We came to decide which was deserving to be called the *best*. And I move you, therefore, Gentlemen, that, in accordance with parliamentary usage, the Giraffe as chairman pro tem. be instructed to proceed immediately to the election of a permanent president."

Tremendous applause was the reward of the speaker. Whereupon the Giraffe took the floor, and declared that he made no pretensions whatsoever to

precedence on account of his great stature alone; his claim was founded upon the beauty of his dappled skin and the gentleness of his character. Majesty, Beauty, and Goodness were the true pearls of perfection. Whether he was what he claimed to be—that he was willing to leave to the high body before him assembled, and he would, therefore, proceed, he said, in conformity with the wish of the Convention, to the nomination of candidates.

A dreadful hubbub ensued. The animals shrieked and clamored. They feared their deepest and most cherished wishes were not to be realized.

"Petitio Principii!" screamed the Parrot, who had learned a great deal in his life-time, but was far from profiting by it. What he meant to say was, that the very question which it was the purpose of the convention to settle had been taken for granted at the start.

"Quack! Quack!" screamed the duck. "It's a piece of senseless folly. Quack."

The Lamb would fain have said something, too. His private opinion was, that Goodness alone should be decisive. If it were not so, why in the name of sense do people call Goodness good! Beauty and Grandeur are dangerous appendages. But the Lamb was weak and stupid; so he said nothing except "Bah! Bah! Bah!"

The strong and powerful animals as yet had not interfered. The Lion and the Tiger glared fiercely into the crowd, and kept busily a-thinking. But the hubbub grew so great that finally the Elephant lost all patience; he sprang up and dashing into the crowd, that the earth quaked beneath his feet, wound his trumpet so loudly, that he drowned the noise of everything about him.

When quiet had been restored, he declared that the President did not have to be the best animal at all. That was just the point the Convention had to decide. They ought not to elect such a feeble animal as the Giraffe president, which belonged to the same family as the sheep, but a person that could keep good order.

"Preside, yourself! Preside, yourself!" piped the Plover. The Plover was a well-intentioned, but nevertheless a very fickle fellow and easily impressed.

"Excellent," grunted the Hog. The Hog was proud of the fact that a pachyderm should thus be honored. He looked upon the Elephant as his cousin.

The Elephant took the chair, and order was indeed restored.

The new president declared that the violent scenes but just enacted had taught the Convention one important lesson—namely, What was the first course necessary to be taken. For, before anything else was done, some irrefragable, incontrovertible principle must be discovered and established in accordance

with which the decision of what was Good should be determined. Not until that had been accomplished, could they hope to decide which deserved to be regarded the best and the most excellent animal.

Speaker after speaker arose. Each lauded the wisdom of the Elephant and declared that surely the President must agree with the position each, guided solely by reason, took. Each believed that his idea of Good bore upon its face an incontestible guaranty of its truth.

Said the Lion: "The greatest virtue is strength. The ideal of perfection is power. The weak perish, the strong survive. Strong teeth, stout sinews, firm muscles, solid bones—such are the criteria that should form the basis of judgment."

Next came the Flea. But unfortunately he spoke so low that he could not be heard throughout the entire assembly. He quoted the very first sentence from a famous work on psychology, saying: "'The lowest animal and the highest animal present no contrast more striking than that between the small self-mobility of the one and the great self-mobility of the other.' Locomotive power accordingly in comparison with size is the factor that determines excellence. Given that and the victory of fleahood is ensured. So far as I myself am concerned, I have kept and always intend to keep on the top in the struggle for existence, come what may."

The Monkey followed the Flea. He agreed with the Flea in so far as the latter appealed to the philosopher cited. "But," said he, "the gentleman that preceded me seems to forget that according to the authority on which he relies complexity of motion is also a factor in determining excellence. One must possess organs that enable one to perform complicated movements. Every one knows how useful the hand is to Man. Nay, the hand makes the Man. Which signifies, that the more hands an animal has, the higher will be his position in the scale of life. The possession of four hands is the cherished ideal of all living creatures, and that ideal is far transcended when in addition to hands there is a developed a fifth organ of prehension—namely, a Tail.

Hereupon the monkeys all yelled "Hurrah!" and the other animals remained gloomily silent.

The Fox, in his turn, dexterously set forth, how slyness was the condition of all success. What was the use of mobility and activity, if they were not employed to good account in the protection and advancement of Self. The Farmer, he added, labors for my benefit. He raises and cares for his poultry, and I partake of his property in the measure that the wants of life require.

The Eagle came forward and demonstrated, that foxes labored under one enormous disadvantage. They

could not fly. Many a poor Reynard had he seen die of hunger because of his inability to get at the doves in a tree-top. Flying is the power we must possess. If Man could fly, he would be master of us all. That is why he is now trying to learn it. What man is unable to do, *that* birds can do. Among birds therefore is the ideal of living creatures to be sought.

The Sparrow concurred in what the previous speaker had said, in so far as it was certain that a bird must be the ideal animal. But added he, the chief aim of life must not be left out of consideration. We have not only to live, but also to enjoy life. If not, what benefit have we from existence! He himself had always been a merry fellow. He had seen, it was true, hard times. Last winter hundreds of his friends and relatives had perished of hunger and cold. He himself owed his preservation to the fact that he had found a wretched, though warm shelter in the chimney of a school-house. The children there had fed him to his heart's content. "They were hard times," he concluded, "but one must view life philosophically. I have abundant opportunity to observe other animals, and am often surprised at their want of insight. The silliest animal of all animals is without question Man. Man thinks ever of the future, and seldom enjoys the present. His whole life long doth he labor and worry, instead of employing the present moment, and being of good cheer and ever in buoyant spirits."

The Bat was of opinion, that everything should be examined and the best retained. There was no doubt of it, he continued, that, as the Eagle said, the Mammals, with Man at their head, would be the highest animals if they could only fly. The substance of all perfection, accordingly, could only be possessed by those animals that united both qualities. Mammals that could fly, must it be; and noble mammals, whose breasts lay over their hearts!

Man had also sent up his name to the Speaker; but there were so many animals on the list ahead of him, that he would have had to wait several days before his turn came. Having various matters of importance to attend to, however, he concluded that it was not worth his while to await the issue of the Convention, and departed. He wrote a report of what happened up to the time of his departure. What was the outcome of the affair we do not know.

* * *

There is a rumor afloat among the other animals that man had left the convention from pure vanity. He had hoped that he would be proclaimed the ideal animal, but during the discussion he had found out that he was lacking in all the virtues which were regarded as constituting the standard of excellence. There was no chance left for him.

And certainly man was not the tallest creature, not

the strongest in muscular power, not the cunningest in sly shrewdness; his locomotive powers were not extraordinary; he did not possess the most complicated organs, he was not the merriest in the enjoyment of life; even in the highest virtue of the sheep's good-naturedness he was extremely lacking. Yet he went to work and joined hand with his brother man. With common wants, they spoke a common language. Their struggle for existence was severest among all creatures, but they comprehended the causes of their troubles one by one, and learned from their hardships. The very evils of life taught them to progress; they fought their way against odds, and took possession of the earth.

Man became powerful as a disciple of nature, by adapting himself to the course of natural events. And now he, in his turn, humanizes nature, not by rendering nature unnatural, but by consecrating nature to the wants of humanity. Humanity, we must know, is the most purely natural part of nature, her highest efflorescence and the incarnation of her divinity.

Man, by humanizing nature, appears as the most egotistic animal; yet man's egotism is not mere selfishness. Man's soul is more than his self. Obedient to the laws of existence, man's soul became an image of the laws of nature. Representing in his mind the divine order of the world and regulating his action accordingly, he became the incarnation of nature's divinity. In this way his dominion over the creation of all the other animals has been firmly established.

Man is not the master of nature, but her first born son. He is potent by submission, and he rules by obedience.

THE SPACIAL SENSE.

THE simplest explanation of the origin of the spacial sense, it seems to me, is to regard it as a specified and automatically operating interpretation of motion-experiences. These motion-experiences are mainly due to the activity of the muscles of the eye. In addition to this, it must be remarked that investigations of Wilhelm Wundt and of Ernst Mach prove that the perspective and the distribution of light and shade are essential elements in our perception of the third dimension in space. Our eyes have become accustomed, by the information received through other channels, especially the sense of touch, to interpret perspective in combination with certain shadings as corporeal forms.

The origin of the spacial sense was formerly interpreted as caused by the convergence of the two lines of vision. This, however, is disproved by the fact that one-eyed persons have the same corporeal vision as two-eyed persons; and if the convergence of the lines of vision were really the only or at least the main factor in the creation of the spacial sense, how could we experience artistic delight in the contemplation of pictures—into which we read, as it were, the corporeality of the third dimension. Our eyes do not converge differently on the different points of the picture more or less distant according to the rules of perspective.

It will be noticed that the relief in a picture appears more perfect, if a frame set it off from the wall, and the best frames are those which have a high elevation at the outer margin and slope

down to the canvas of the picture. A good frame helps to intensify the illusion, and may be compared to looking out through a window upon a landscape beyond.

Perspective in combination with light and shade will naturally be interpreted as the third dimension. Thus in looking at a picture with one eye only, excluding the rest of the field of vision, (which is generally effected by using a tube) the illusion is more perfect than if we used both eyes. One eye cannot help but interpret a correct perspective combined with a faultless distribution of light and shade in the way acquired by heredity and experience, that is as an indication of the third dimension. The assistance of the second eye reveals many minute details which to a great extent destroys this illusion; and so does a comparison with the surroundings of a picture. Accordingly if these two sources of information are removed the relief in a picture will naturally appear more perfect.

Mr. Wake in his article "The Third Dimension in Monocular Vision" in the last number of *The Open Court* uses the expression *latent* perspective and maintains that if Mach's view is correct, it will not be necessary to have recourse to the psychological explanation of M. Binet. The term "latent perspective" does not appear to me an appropriate expression, for it can too easily be mistaken for some mystical quality objectively present in picture. If the term "latent perspective" is simply taken in the sense of *chiaroscuro*, we see no reason for the statement that there is a conflict between the explanation of Wundt and Mach on the one hand, and of M. Binet on the other. For the former is just as much "psychological" as the latter, which no more than the former denies the existence of a "physical basis in the picture itself." P.C.

BOOK REVIEWS.

FREETHINKING AND FREE INQUIRY. By Agnesa. London: W. Stuart & Co.

This little book (64 pages) is the "first part of a series of manuals to be devoted to sketching in outline a system of Rationalistic philosophy." The basis of the work, however, is the philosophy of Agnosticism, which the author regards as the demonstrated resultant truth of science; so that the reader must not expect to find a critically constructed body of principles, but a theory of things as viewed from the position assumed to be correct, of so-called Agnosticism.

It is one beauty of Agnosticism, when merely theoretically professed by competent and earnest investigators, that despite their belief in its truth and inefficacy, it can, by virtue of its own inherent, impotency never vitiate the results they arrive at. It is a pre-eminently useless and unnecessary adjunct to such work—the surplussage of philosophy; and were it not for its ethical tendency and disintegrative influence, might be entirely neglected. Thus, for instance, of what use is "that deepest, widest, and most certain of all facts, that the Power which the universe manifests to us is inscrutable," to "Agnosco," in his solution of the religious problem? He recognises that the religion of the future is to be a religion of science; he says it will "consist . . . in discovering the true action and import of nature's laws and understanding how best we may conform thereto"; and he recognises that nature is the totality of all phenomena, and that it is regulated by unalterable laws the investigation of which is the object of science. If this is a fact, not dependent on the existence of an external power known or unknown, why should we concern ourselves or bother about a power that is not a power and that has no "power" to interfere in any way with its own creations, or "manifestations," but is *ex hypothesi*, by the irrefragibility of its own laws, placed *hors de combat* so far as regards any damage it can do? Its effect in the equations of practice and of thought is thus admittedly zero, and why should we not eliminate it? Instead of saying that this

Power is "unknowable," why not say unhesitatingly that it does not exist? The author has himself supplied the material and developed the logic to this conclusion.

And if this is true in the case of religion, how much more is it so in the case of metaphysics and physics. Except that here it is far from harmless. For, when we can say that force and matter are the dynamical and statical differentiation of one existence, "caused by some unknown and perhaps unknowable power," it is indeed conceivable that we should be able to hold that "phenomena are produced by the interaction of two *causes*—matter and force"; or that there is an "absolute truth," "as near as possible" to which it is the office of criticism "to lead us."

Aside from *fundamental* objections of this and a similar character, we find much to commend in "Agnosco's" little book—its style, its aptness of illustration, and its copious and well-put citations of scientific facts. Of the practical aspect of freethought, as currently conceived, it is representative. J. P. K.

HERMETIC PHILOSOPHY. Including Lessons, General Discourses, and Explanations of "Fragments" from the schools of Egypt, Chaldea, Greece, Italy, Scandinavia, etc. Designed for Students of the Hermetic, Pythagorean, and Platonic Sciences, and Western Occultism. By an *Acolyte of the "H. B. of L."* Philadelphia: J. B. Lippincott Co.

This is the first of a series of volumes on "pure, mental, occult science." The series proposes to "lay" the system of Old Egypt, Chaldea, Greece, and other countries before students. The present volume deals with "Things That Are." Here are some of the "things that are," put in the form of maxims; viz.—"*Not every body is dissolvable*"; "*Some bodies are dissolvable*"; "*Not every body is sick, but every body that is sick is dissolvable*"; "*That which abides always is unchangeable*." The author justly says, *à propos* of these things, that "the course of reasoning and line of thought in this study and school require the exercise of a higher range of faculties than those which are directed exclusively to a contemplation of material and physical manifestations." We believe him; and are glad, when we contemplate the state of mind necessary to comprehend things of this sort, that we do not possess these faculties.

The "Hermetic Philosophy" is compiled of sentiments and excerpts from ancient and oriental authors of celebrity and authority. But they are compiled without *critique*, and to the ordinary mind, in most of their applications, appear silly—just as the doctrine of the Conservation of Energy, in all its truth, would appear silly if similarly put and similarly employed. J. P. K.

THE FIVE REDEEMERS. By M. J. Barnett. Boston: H. A. Carter & Company. 1899.

The five redeemers or rather classes of redeemers of this work are mothers, teachers, employers, artists and priests. The title is not an unhappy one, for the condition of society largely depends on the way in which the persons standing in those relations towards their fellows perform the duties their positions impose on them. They are placed in the order in which their influence is felt by those subjected to it, and it is significant that while the first redeemer is the mother the last is the priest, the former being concerned with the beginning of life and the latter with its end, if his services are called into requisition at all. The book is episodically pervaded with notions of the science of "spiritual healing," "the science of metaphysics," and other sciences that are not sciences.

BOOK NOTICES.

"The Fruits of Culture," a comedy in four acts, by Count Leo Tolstoi, translated by George Schumm, has recently been published by Benj. R. Tucker, Boston, Mass. The rendering is

fair: one of the characters is Tania, a young girl who in moments of powerful joyous excitement, "squeals."

"Teutscher Radikalismus in Amerika; ausgewählte Abhandlungen, Kritiken und Aphorismen aus den Jahren 1854-1879," by Karl Heinzen. Edited and arranged by Karl Schmemann. This paper-covered book, of 371 pages, is the first of a new series of volumes, to be three in number, which shall contain the chief and most valuable of Heinzen's journalistic performances as published between the years mentioned in the *Pioneer*, a German newspaper which he edited. Their importance from an ethical and historical point of view cannot be overestimated. Heinzen was in the truest sense of the word a man of his convictions. But his convictions were supplemented by a critical and cultured mind which supplied his steadfastness with the element that in this type of character is most commonly lacking. His writings will be read especially by the Germans of our country, who deserve so much of him: but they possess in point of acumen and verity, an independent value and applicability in the sphere of opinion generally, and might more than profitably be studied by us Americans who profess so much freedom and act so much despotism. (The Freidenker Pub. Co., Milwaukee.) L. G.

NOTES.

We learn with deep regret of the recent death of Mr. Josiah P. Mendum, proprietor and manager of the *Boston Investigator*. In the capacity of general director of the last-named liberal journal, Mr. Mendum labored in the interests of freethought for more than half a century. His activity has been almost wholly in the practical sphere. But his unselfish and persistent efforts have supplied a foundation on which others will be able to build, and his life-work has been, therefore, one of inestimable value to the ideas he espoused.

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MONOGAMY AND FREE LOVE.

IF we understand by free love what the word literally means, an absence of all compulsion to love so that love is granted and received as a free gift, what can be better, nobler, and more natural than free love? Love must always be free—or it is not love. Accordingly, free love is a matter of course, which in its proper meaning no one can dispute. Yet if we understand by free love that which as a rule is preached by most of the so-called apostles of free love, it would mean the absence of all restraint in the relation of the sexes, the destruction of its ideal element and the reign of licentious laxity. In that case it is only a beautiful name that has been given to an ugly monster; it is a devil that appears in the garment of an angel; it is moral filth praised as celestial manna.

There are laws of life which we must obey under penalty of perdition, and there are laws of love which we must obey under penalty of destroying the holiness of love or even defeating its end and purpose.

The purpose of love, that is of sexual love, is not the gratification of the sexual instinct, nor is it any pleasure that man may derive from such gratification. Wherever there is a gratification in love or in friendship, it is, regarded from the moral point of view, incidental; it is of secondary consideration and we need not speak of it here. The purpose of sexual love, its end and its holy law, is the welding of two souls into one so that a new soul-life may spring from it in which the two souls are inseparably fused.

What is soul? The Saxon poet says:

"Soul is form and doth the body make."

Soul is the form of a living organism. A fusion of souls actually takes place in the procreation of a new life; and this fusion of souls is one of those mysteries of nature which even, though science should succeed in explaining to our satisfaction its mechanical process, will forever remain a wonder before which we stand spell-bound in awe and admiration—a wonder which is grander and more miraculous than all miracles in which many of us are so fond of believing.

* * *

What is the law of love that must be obeyed? The law of love is obedience to the purpose of love, and the purpose of love is one of the holiest duties of man; it is the building up of our race. And this can

be accomplished only if it is done with truthfulness, devotion, and self-sacrifice.

The love of friendship between congenial minds, the love of the teacher to his pupils, of the preacher to his congregation, are also a building up, a preservation and a transference of soul-life in the human race; but conjugal love is devoted to the procreation of new souls, and without the sex relation of conjugal love humanity would die out.

Conjugal love in its legal form is called marriage, and the present form of marriage among all the civilized races is monogamy. Humanity has found by experience that society prospers best where the sexual relations are so arranged that one husband and one wife constitute the foundation of a family. The races in which polyandry prevails are rare exceptions; and wherever polyandry is the normal state of society, there is, as a matter of fact, no civilization, no culture, no progress. We have reasons to believe that polyandric tribes are a very low phase of human society, perhaps even a state of degeneration which in the end will lead to extinction.

Polygamy is practiced still in Asia, and it has been practiced among highly civilized people. Yet wherever monogamous and polygamous nations were rivals for supremacy, the monogamous nation proved always victorious in every kind of competition, in war as well as in peace.

There can be no doubt that monogamy is that form of matrimonial relations which best attains the ends of sexual love. Polygamous nations may have, but as a rule they do not have more children than monogamous nations, yet the children raised in monogamous family life are sturdier, healthier, and better educated. The institution of polygamy, while it degrades woman, easily induces man to marry merely for the gratification of their sexual appetites, and the seriousness of the duties of marriage is overlooked.

The ultimate purpose of marriage is the preservation of human soul-life, and if monogamy is more efficient in this one point than polygamy, if it enables man to raise a generation that loves freedom and delights in progress, it must be preferred whatever other advantages or pleasures might be connected with any other system of regulating the sexual relations in human society.

Monogamous nations are distinguished by love of freedom and by a progressive spirit; polygamous people are on the contrary easily enslaved. Their life as a rule shows a state of stagnancy, and their history consists of a series of court intrigues and palace revolutions.

Monogamy has become a holy institution to the nations of Aryan speech, because their civilization rests upon monogamous family life. So long as the moral sense of a nation is vigorous, it will most severely resent whatever threatens to destroy the holiness of monogamous family life. Thus the apostles of free love when they attempt to attack and destroy monogamy will meet with almost unanimous resistance.

* * *

The theory of free love in the sense of unrestricted sensuality is sometimes claimed to be the natural state, while matrimony is denounced by the defenders of free love as unnatural. If that were so, all the institutions of civilization ought to be considered unnatural. Raw food would be natural and cooked food unnatural; to live like the monkeys of the Sunda Islands would be natural, while plowing, sowing, and harvesting would be unnatural. Indeed the claim that free love is the natural state has been made only by most immature minds, who are without knowledge of the historical growth of our institutions, who are not familiar with the evils of such former states of society as are supposed to be more natural.

The defenders of free love very often lack all personal experience of harmonious and healthy family life. Not infrequently they have sprung from a marriage of ill-mated parents and have been too deeply impressed with certain incidental evils developed in such cases by the monogamous system. It would be a rare exception indeed if a father or a mother would advocate for their children the theory of unrestrained sexual intercourse.

Free love might perhaps be the correct theory, if such institutions as marriage could be judged from the standpoint of single individuals. The sex relation however is of greater concern than mere individual interest; and the problems rising therefrom must be judged from the higher standpoint of the common welfare of society.

The nature of human society develops certain relations which are wanting in the lower stages of animal life; but they are nevertheless just as natural. Who would say the oak is less natural than the lichen, only because the oak represents a higher stage in the evolution of plant life? The oak however would become unnatural, it would be in a morbid state, if its organs would degenerate so as to fall back to the lower stages of plant life.

Let us beware lest in trying to be natural, we should degrade ourselves into habits which may be natural to animals but are most unnatural to human beings—not that the satisfaction of the animal wants of man is unworthy of his higher nature, but that the animal way of satisfying them must be condemned.

* * *

It cannot be concealed however that as high an ideal as monogamy is, it sometimes demands great sacrifices; and the social sentiment which by law as well as by public opinion enforces the institution of monogamy, will sometimes have its victims. Marriages in which a man and a woman who for some reason cannot agree, are joined together until death shall part them, will produce misery that changes life into hell. There are also cases in which for some reason or other a legalization of the bond that has joined two noble souls in sacred love, could not take place. There are several well known instances even among great thinkers and geniuses of literary fame. There are some cases that cannot be measured by the usual standard of morality. It is a fact that men and women whose fates led them into paths that were different from the prescribed forms of marital relations suffered greatly from public prejudice. We should in such cases remember how kindly Christ treated the woman that was found guilty. "He that is without sin among you," Christ said, and we understand that he here refers to the sins against our sexual ideal of morality, "let him first cast a stone at her."

The sexual instinct in man is a most powerful element of his soul-life. It is dangerous to rouse it and more dangerous still to suppress or eradicate it. The whole vigor of natural forces is hidden in it. Sexual love wherever it grows is a serious thing to deal with. If it cannot have its way in legitimate channels, it will like steam that is shut up, break its way through laws and customs in spite of prejudices and public condemnation.

Let us therefore beware on the one hand lest we fall into temptation, and on the other hand when we see the mote in the eye of our brother, lest our judgment be too severe. Those who are without sin, beware that they preserve the purity of their soul. He who according to the holy legend of the Christian gospel was above all temptation, abstained from throwing a stone. He said in his lordly dignity to the adulteress: "Go and sin no more."

THE DOUBLE BRAIN AND DOUBLE PERSONALITY*

BY TH. RIBOT.

RECENT experiments with hallucinations have been made which, taken with other facts, have led certain authors to give an explanation of the duplication of

* Continued from the article on "Hallucinations" in the last number.
Translated by J. W.

personality so simple as to be, so to say palpable. In the first place they point out the functional independence of the two hemispheres of the brain, and hence they conclude that from their synergy results the equilibrium of the mind, and from their discord various derangements and ultimately the division of the psychic individual. We have here two distinct questions, which have been clearly discerned by several of the scientists whom I shall quote, and much confounded by others.

Sir Henry Holland, a physician and well-known psychologist, was the first who studied (in 1840) the brain as a double organ, suggesting that certain aberrations of the mind might be due to the irregular action of the two hemispheres, of which the one in certain cases seems to correct the perceptions and sentiments of the other. In 1844 Wigan went still further. He maintained that we had two brains and not merely one; and that "the *corpus callosum*, far from being a bond of union between them, is really a wall of separation," and maintained, even more positively than his predecessor, the duality of the mind.* The advancement of cerebral anatomy has subsequently yielded other and more positive results; such as inequality of weight of the two lobes of the brain, their constant asymmetry, differences in the topography of the cortex, etc. The discovery by Broca of the seat of aphasia, was a new argument of great value. It was also supposed that the left hemisphere was the principal seat of intelligence and of will, that the right hemisphere was more particularly devoted to the life of nutrition (Brown-Séquard). I abridge this historical résumé, which could be much lengthened, and come back at once to hallucinations. The existence of simultaneous hallucinations, sad on the one side, joyous on the other, in all cases different and even contradictory, attracted the attention of observers. But there was something better to do than observing; there were experiments to be made. Hypnotism furnished the means for the latter. Let us remember that the hypnotised subject can pass through three phases: the first lethargic, characterized by neuro-muscular excitability; the second, cataleptic, produced by raising the eyelids; and the third, somnambulistic, caused by pressure upon the vertex. If during the cataleptic state we lower the right eyelid, we act upon the left brain, and we determine a lethargic state of the right side only. The subject thus becomes, as it were, divided into two—hemilethargic to the right, hemicataleptic to the left, and I will now state what occurs taking the facts from M. P. Richer's well-known book:

"I place upon the table a water-jug, a basin, and

some soap; as soon as the patient's glance has been attracted towards these objects, or her hands touch any of them, she proceeds with apparent spontaneity to pour water into the basin, takes the soap and washes her hands with very minute care. If we then lower the lid of one of her eyes—the right eye for example—then all the right side becomes lethargic, and the right hand immediately stops; but the left hand, nevertheless, continues the movement. On again raising the eyelid, both hands at once resume their action as before." The same thing is also produced on the left side. "If we put into the patient's hands the box containing her crochet-work, she will open it, take out her work and begin to crochet with remarkable skill If we close one of her eyes, the corresponding hand will stop, the arm drops motionless . . . but the other hand, unaided, seeks to continue a work that has now become impossible; the mechanism continues to work on one side, but it modifies its movement, with the purpose of rendering it efficacious."

The author reports several other cases of the same kind, of which I shall only quote the last, because it confirms Broca's discovery. On placing in the hands of the subject an open book, and directing her glance toward one of its lines, she reads. "In the midst of her reading, the closure of the right eye, through the decussation of the optic nerves, which affects the left brain, stops the patient abruptly in the middle of a word or phrase. As soon as the eye is opened again she resumes her reading, finishing the word or phrase that had been interrupted. If on the contrary the left eye is closed, she continues her reading, only hesitating a little on account of partial amblyopia and achromatopsia of the right eye."[†]

One might vary these experiments. A different attitude is impressed upon the limbs of each side of the body; on one side the subject bears a stern expression, while on the other side she smiles and sends kisses. The hallucinatory state can be provoked only on the left or on the right side. Finally, let two persons approach the subject, one at each ear; the person on the right describes the fine weather, the right side smiles; the other on the left describes the rain, the left side betrays displeasure and the labial commissure is lowered. Or again, while suggesting through the right ear the hallucination of a picnic, near the left ear let the barking of a dog be imitated; the face will express pleasure at the right and alarm at the left side.[‡]

These experiments, of which we only give a very condensed summary, together with many other facts, have very logically led to the following conclusion: that there exists a *relative independence* of the two

* Wigan: *The duality of mind proved by the structure, functions, and diseases of the brain, and by the phenomena of mental derangement, and shewn to be essential to moral responsibility*. London, 1881. This badly digested book does not bear out what its title claims.

† P. Richer, *Études cliniques sur l'hystéro-épilepsie*, pp. 391—393.

‡ Magnan and Dumontpailleur, *Union Médicale*, 15 May 1883.

cerebral hemispheres, which by no means excludes their normal co-ordination, but which in certain pathological cases becomes a perfect dualism.

Some authors have been inclined to go still further and to hold that this cerebral dualism suffices to explain every discrepancy existing within the mind, from simple hesitation between two resolves to be made, to the complete duplication of personality. If at the same time we wish good and evil; if we have criminal impulses and a conscience that reproves them; if the insane at times recognizes his folly; if the delirious has moments of lucidity; if, in fine, some persons believe themselves double, it is simply because the two hemispheres are in discord; the one is healthy, the other is morbid; one state has its seat to the right, its contrary to the left; it is a kind of psychological manichism.

Griesinger, upon encountering this theory, already put forth with diffidence in his day, after quoting the facts which it vindicates, and the case of one of his patients, who "felt himself growing irrational only on one side of his head, that is on the right side," concludes in the following terms: "As to us, we are not by any means inclined to attribute any particularly high value to these facts."*

Have they gained in weight since that time? It is very doubtful. In the first place (since the theory rests upon a question of number) are there not individuals who believe themselves triple? I find at least one instance. "In a certain lunatic asylum," says Esquiros, "I have met with a priest, who through the excessive application of his mind to the theological mystery of the Trinity, eventually came to regard all objects around him as triple. He even imagined himself to be in three persons, and requested the attendants to lay three covers for him at table, with three plates and three napkins."†

I believe that by dint of active search we should find other cases of this kind; but I refrain from availing myself of this case of triplicity which to me seems capable of several interpretations.

Against that theory there could be alleged the best possible reasons, and supported by plain facts. It ultimately rests upon the absolutely arbitrary hypothesis that the struggle is always between two states only. Experience contradicts it completely. To whom has it not happened, to deliberate upon the advisability of acting in a given sense; to hesitate between acting according to one reason or according to the contrary reason, or to refrain from acting at all, say between journeying northward or southward, or remaining at home? In our lives it repeatedly hap-

pens that we have to decide between three alternatives, of which each necessarily excludes the other two. Where shall we locate the third? for it is in this strange form that this question has been mooted.

In a few cases of congenital atrophy of the brain, which seem based upon authentic observations, individuals have been seen who possessed from their infancy only one cerebral hemisphere; yet their intellectual development was not impaired and they resembled ordinary men.* According to the hypothesis we are combating, in these individuals there could not have occurred any internal struggle. However, it is useless to dilate upon this criticism, and I shall content myself by calling to mind Griesinger's comment upon a well-known line in Faust: "Not only two but several souls dwell within us."

In fact this discussion itself would be idle, were it not that it gives us an opportunity of viewing our subject from a different aspect. These contradictions in the personality, these partial scissions of the ego, such as are found in the lucid moments of insanity and of delirium,† in the self-condemnation and reprobation of the dipsomaniac, while he is still drinking, are not oppositions in space (from one hemisphere to the other) but oppositions in time. They are—to use a favorite expression of Lewes—successive "attitudes" of the ego. This hypothesis accounts for all that the other explains, and in addition it explains what the other theory does not.

If we are thoroughly imbued with the idea that personality is a consensus, we shall have no difficulty in admitting that the body of conscious, sub-conscious and unconscious states which constitute it, may at a given moment be summed up in a tendency or a preponderating state which is its momentary expression to the individual himself and to others. And just as suddenly the same mass of constituent elements is recapitulated in a contrary state, which thereupon assumes the foremost importance. Such is our dipsomaniac, who drinks and at the same time reproaches himself. The preponderating state of consciousness at each moment constitutes to the individual and to others his personality. It is a natural illusion, of which it is difficult to rid ourselves, yet an illusion which rests upon a partial consciousness. In reality there are only two successive attitudes, namely, a different grouping between the same elements with the predominance of a few and that which follows. In the same manner our body can successively assume two contrary attitudes without ceasing to be the same body.

It is clear that three or more states can succeed each other (coexist apparently) through the same

* *Op. cit.*, p. 28. See also the negative conclusions of Chariton Bastian upon this point, Vol. II, ch. XXIV.

† *Revue des Deux-Mondes*, 15 Oct. 1845, p. 307.

* Cotard, *Etude sur l'atrophie cérébrale*, Paris, 1868; *Dict. encycl. des sciences médicales*, art. "Cerveau" (Pathologie), pp. 298 and 453.

† Jensen in his *Vorlesch einer wissenschaftlichen Begründung der Psychologie*, p. 189, reports a curious instance.

mechanism. We are no longer bound to the exclusive number of two. We must, however, acknowledge that this internal scission is more frequent between two contrary states, than between three or a still larger number of states. This depends upon certain conditions of consciousness which must be recalled to mind.

Is there a real coexistence between two states of consciousness, or such a rapid succession that it appears to be simultaneousness? This is a very delicate question and is as yet unanswered, although at some future day it may be solved by psycho-physicians. Hamilton and others have maintained that we can have as many as six impressions at the same time, but their conclusion is derived from very meagre investigations. The determination, according to strict methods of physical science of the duration of the states of consciousness, is a great step in advance. Wundt has tried to advance even further, and to fix by experiment what he correctly calls the extent of consciousness (*Umfang des Bewusstseins*), that is, the maximum number of states which it can contain at the same time. His experiments only bear upon certain exceedingly simple impressions (the strokes of a pendulum regularly interrupted by the strokes of a small bell), and consequently are not in every point applicable to the complex states that here occupy our attention. He has found "that twelve representations form the maximum extent of consciousness for the successive, relatively simple states."*

Experiment, accordingly, seems to decide in favor of a very rapid succession, equivalent to a coexistence. The two, three, or four contrary states would in reality be a succession.

We know, moreover, according to a frequently used comparison, that consciousness has its "yellow spot," like the retina. Distinct vision is only a small portion of total vision; and clear consciousness is but a small portion of total consciousness. Here we touch the natural and incurable cause of that illusion by virtue of which the individual identifies himself with his present state of consciousness, above all when it is intense; and obviously this illusion is by far stronger to himself than to others. We also perceive why apparent coexistence is much easier for two contrary states than for three, and above all than for a larger number. This fact depends on the limits of consciousness; or to repeat a previous statement of mine, it is an opposition in time and not in space.

Briefly, the relative independence of the two hemispheres is not disputable. The derangement produced in personality through their disaccord is admitted, but to reduce everything to a simple division between the left and the right side is an hypothesis which hitherto has not been supported by any substantial proof.

* *Grundzüge der physiol. Psychologie*, 2d Edition, Vol. II, p. 215.

BALLOT REFORM.

BALLOT Reform was the topic discussed by the Sunset Club at its meeting of January the 8th, the chief speaker being Murray F. Tuley, Chief Justice of the Circuit Court, and President of the Ballot Reform League. His address exposed the evils and imperfection of the American plan of ballot-boxing, and proposed as a remedy the Australian method by which to "execute the free man's will," a feat poetically, but erroneously ascribed to the "American, or 'snowflake' ballot."

According to Judge Tuley, our electoral machine is fearfully and wonderfully made; the cogs, pulleys, and mainsprings of it being mischievously arranged so as to defeat the people's will, selecting and electing candidates with sinister skill, separating the wheat from the chaff like a thrashing machine, and perversely dropping the chaff into the offices while blowing the wheat away. So he appeals for wisdom to Australia.

Our plan of elections has not failed for want of laws to strengthen it, and our penalties for false ballot-boxing are numerous and severe; "in fact," says Judge Tuley, "the brains and ingenuity of our statesmen appear to have been taxed to the utmost to provide a machinery by which the will of the voter might be fully and fairly expressed." Considering the deplorable result, as portrayed by Judge Tuley himself, what does he think of "the brains of our statesmen?" And what does he think of the political sagacity of a people, who, unrivalled in the practical arts, and pre-eminent in the genius for material inventions, leave all their magistrates to be chosen, and all their public affairs to be regulated by a worn out and conservative mechanism under the guidance and administration of clumsy and corrupt engineers.

Contrasting the weak performance of our ballot system with its extravagant promise, Judge Tuley said, "The theory of our political system is that the people are sovereigns; and that the citizens control all public affairs." If such is the theory of our politics it is a foolish theory; the important question is, What is the fact of our politics? What is the net result of it expressed in terms of justice? Pope must have anticipated our condition when he said:

"For forms of government let fools contest,
That which is best administered is best."

Of what value is our "theory" except for 4th of July purposes, when Judge Tuley himself confesses that, "Experience has demonstrated that the practical working of the machinery of our political institutions is a wide departure from that theory, and has demonstrated the fact that there has arisen a class and a power unknown to the constitution and the laws, which has usurped the will of the people, the power of the people, the sovereignty of the people, and that power is what is known as the practical politician. Whether or not the "practical politician" is the result of our political "theory," he certainly is the product of its administration; and he ought to be. Politically speaking, and to some extent socially too, for that matter, the most patriotic citizens in any American community outside the big cities are the practical politicians. In the country at large their efforts are directed more to keeping bad men out of office than to getting them in. They serve a very beneficial purpose in the economy of government by ballot.

Contemptuously describing the "practical politicians," Judge Tuley says, "The leaders are known as political bosses, but the great mass of them are known as political workers, ward strikers, and political breeders." He also complains that their domination "has the effect to prevent the better class of citizens from obtaining or holding an office." Those definitions are true only in the great cities, with many exceptions to them even there. In the country districts the practical politicians are chiefly composed of men who take a practical interest in public affairs, and who try in their party conventions to nominate good men, while "the bet-

ter class of citizens" have not patriotism enough to risk their hats in a shower of rain, for the sake of any public duty whatever.

Judge Tuley says that under our present system, the practical politicians "work primaries and make returns of delegates to the conventions without any regard to the number of votes that have been cast." He also complains that "our elections are entirely too frequent," and that "to the victors belong the spoils." Well, to whom should they belong? To the unpractical politicians? To the slothful patriot who minds his own business, and never goes to the primaries or to the polls? Shall we give men commissions in the army because they have always been distinguished as non-combatants? It is a grave mistake that our elections are too frequent. They are not frequent enough. No man ought to hold office more than two years without a re-election. Tory and aristocratic governments dread frequent elections, but democracy hails them as the safety valves of republican institutions. Our elections are not so frequent as our house-cleanings, though much more necessary.

Although Judge Tuley displays a Pandora's box full of evils resulting from our elective system, he also shows us a large piece of hope at the bottom. He says: "So great are the evils attending the working of our political machinery that many thinking men have lost faith in popular government, but I for one believe in the virtue, intelligence, and honesty of the people." Why? What have they done to deserve it? It is a pity that our public men must always rebuke the vices of the people in tributes to their "virtue, intelligence, and honesty." The sovereign on the throne has not more courtly adulators than the sovereign of the slums.

Does Judge Tuley when he sentences a criminal to prison flatter him about his honesty? Who are those delinquents whom he arraigned and sentenced at the Sunset club for corrupting the ballot and profaning the very source of magistracy and of law? Are they not the "masses of the people," forever forcing the statutes to their own interests careless of their neighbor's rights or wrongs? Probably not one of the principalities and powers deserves more censure than this arrogant monarchy in which all the people are "sovereigns," and which Judge Tuley dignifies by the name of "popular government."

And what better work does he expect our "election machinery" to do when its motive powers are the organized appetites of aliens and strangers from the Shannon, the Danube, and the Volga; from yellow Tiber and the Isles of Greece, the Isles of Greece where burning Sappho loved and sung? What does he expect from their untutored citizenship and their undisciplined freedom? A soldier being rebuked by his captain for conduct prejudicial to good order said, "You cannot expect all the cardinal virtues for \$13.00 a month." Neither must Judge Tuley expect educated and patriotic statesmanship to come at his call out of a Chicago ballot box. We cannot croak husky discords into a phonograph and get for echo out of it a Beethoven symphony; neither can we get out of the ballot box laws or magistrates wiser or purer than the ballots that go in. When we do, it is the work of "practical politicians," leaders who have directed the electors to vote better than they knew.

Nor is there anything in all this of which the American has any right or reason to complain. He has invited those people over here with promises of work, wages, land, offices, and—ballots. He has said to each of them "Cease to be the subject of Humbert the king, of William the emperor, of Alexander the czar, and be my 'sovereign,' and they have taken him at his word. He may repent of his bargain, but he cannot let his promise go to protest, for citizenship was nominated in the bond. Nor would it be wise to do so; those people must either stand sullen, unfranchised, and dangerous outside the commonwealth, or be absorbed into it and become interested partners in its welfare and its glory. It may take a generation or two to mould some of them into American

form, but citizens they must be. They have built the city by the cheapness of their strength, and by their skill in handicraft they have dowered it with gold. If they do not govern it quite so well as they build it, the fault is not theirs altogether. At all events the American has no right to accept their work which was in the contract, and deny them the ballot which was in the contract also. He must not expect all the cardinal virtues for thirteen dollars.

While equal suffrage and the ballot are essential elements of political justice, it is not necessary that the ballot should work mischief, nor be stained with bribery or beer. Judge Tuley was quite successful in showing this; and the historical argument he made for the Australian ballot system was clear and convincing. In fact nobody attempted a counter argument, nor did any man try to defend the ballot as it is. Judge Tuley left his opponents where Mr. O'Connell put the English Tories in his plea for ballot reform in 1838. "The man who is against it," said Mr. O'Connell, "is either a knave profiting by misrule, or a fool upon whom reason and argument make no impression." It is to the credit of the English ministers that although they conceded the ballot with great reluctance, yet having adopted it they made it free, impartial, and absolutely secret. Neither bribery nor tyranny can reach it, and the poorest man can vote in absolute security, free from all intimidation or personal importunity. Why should it not be so in Illinois? The reform has advanced thus far in Chicago, that the man who opposes it lays himself open to suspicion, and must choose one horn or the other of that uncomfortable dilemma presented by Mr. O'Connell fifty years ago.

Judge Tuley had some creditable scorn for New York and some other states which having pretended to adopt the Australian system, allowed the practical politician to "get in his work" and adulterate the new law with just enough of the old virus to poison it. He ought not to be surprised at this when he remembers how many people in New York are interested in bad government, and the oppression and corruption of the ballot. And let him not be surprised if the practical politicians of Chicago get in their work also, and either burke Judge Tuley's bill, or change its form and character so that he will not be able to recognise it should he meet it on the street. Look at the industries it threatens according to his own confession. "It will do away with bribery," he says, and "free us from the dominion of primary conventions." Not only that, "it will render unnecessary any lavish expenditure of money in elections." In addition, it will abolish ticket pedlars, and "the practical politician will become a thing of the past." Judge Tuley will find that these are formidable foes, not in the habit of being defeated—at Springfield.

M. M. TRUMBULL.

AT "THE BLOWING CAVE": KENNEBUNKPORT, MAINE.

BY MARY MORGAN (GOWAN LEA).

O RESTLESS ocean! How thy waters play,
Fast whirling round the rocks, and murmur make
Among the boulders, this unclouded day!
Enticing, cool, thy waves, and all awake
To silent influences of the sky!
With sudden leap behold thy pearly foam
Uprises, rainbow-hued, in air so high.
Relapsing to its deep, blue ocean-home!
O restless man! Though watching ocean's play,
'T is thee I see,—whose changing notions make
A vortex of thy life in youth's fair day!
Earth's pleasures lure, and art not thou awake
To subtle influences of the sky?
Thy heaven-born hopes rise bright as ocean foam,
And glistening, rainbow-hued, awhile on high,
Return unto the soul—their real home!

BOOK REVIEWS.

THE PEOPLE OF THE BOOK. A Bible History for Religious Schools, with a Useful Appendix. By *Maurice H. Harris, A.M., Ph.D.* From the Creation to the Death of Moses. New York: Philip Cowen.

The author attempting to treat the Scriptures somewhat from a modern standpoint, says that he has faithfully tried to "interpret the spirit of the Bible, which in his opinion is ethical first and ethical last." He goes over the field of biblical history from the beginning to the death of Moses, attaching a moral lesson to every chapter. The book is written for Jews, but it can hardly be called sectarian. It is a religious book, but pervaded by a liberal spirit.

CHIPS. Lectures in Rhyme, Poems, Messages, and Songs. Through the Mediumship of *Jennie Russell*.

We do not believe in mediumship or in the spiritualistic creed of the author. Nevertheless we find in glancing through the book some lines written in a poetical spirit. As a specimen we quote the following verse, "A Prophecy," addressed to a lady friend:

"Your life shall be like a crystal stream,
Clear, and bright, and grand;
You shall not in the valley stay,
But on the topmost heights shall stand.

You shall have honor and renown,
And blessings pure and bright;
Fame shall weave for you a crown,
Ever glowing with pure light."

LIBERTY IN LITERATURE. Testimonial to Walt Whitman. By *Robert G. Ingersoll.* New York: Truth Seeker Company.

Col. Robert G. Ingersoll delivered on Oct. 22d, 1890, an address in Horticultural Hall on the author of the "Leaves of Grass." Walt Whitman was present, sitting sedately in his easy wheeled chair. "No burst of eloquence from the orator's lips," we are informed, "disturbed his equanimity." Col. Ingersoll praised the poet as the prophet of the Religion of the Body. His poetry would have been suppressed "if what are known as the best people could have had their way." His philosophy is that "this life with all its realities and functions is finally a mystery." Long quotations are made, especially the "Chant for Death" and several passages on "Old Age."

The present book is a publication of this lecture. It contains a portrait of Walt Whitman.

CHURCH AND STATE AND OTHER ESSAYS. By *Count Leo Tolstoi.* Boston, Mass., Benj. R. Tucker, Publisher, 1891.

These essays have been translated by Victor Yarros and George Schumm. They represent the Russian Count not in the style of his novels but in his lay effusions. In the article "Church and State" he denounces the dogmatism of Christianity and inculcates the importance of its moral doctrines. Money, Tolstoi says, represents labor. Concerning the duties of man and woman he declares, "Only by his works is man called to serve God. Only by her children is woman called to serve God." Tolstoi knows apparently nothing about the woman-suffrage and woman's-right movement. In his "Second Supplement to the Kreutzer Sonata," the doctrine of sexual abstinence is preached. "You say," our author adds, "the human race will become extinct! Indeed, brute man! And is that perhaps a misfortune?"

A NEW PSYCHOLOGY: AN AIN AT UNIVERSAL SCIENCE. By the *Rev. George Jamieson, D.D.* Edinburgh: Andrew Elliot

This work is, in the words of the author, an attempt "to explore what has been regarded by many as 'the Unknowable,' and is intended to be a philosophy of substance." The primitive substance is the ether which is regarded as spirit-substance, "inexhaustible

in its capacity of manifold and distinctive representation." The ether has two general attributes, primordial quality and primordial energy, which are the foundation of particular qualities and forces; and it is the foundation of subjectivity and the source of consciousness—life and mind are phenomena of the primitive substance. In the second chapter, Dr. Jamieson treats of "the philosophy of mind in conjunction with matter." The consciousness of externals is derived from personal or self-consciousness, and the forms and conditions of thought are a reflex of the forms and conditions of things received from the external world. Will, like all the other phenomena of mind, is an effect, and it is caused by the operation of motives, which vary in accordance with the kind of ideas introduced to the Ego. The foundation of the moral law is found in the recognition of the acknowledged rights of every conscious creature, the infringement of which is to be regarded as a breach of moral law.

BOOK NOTICES.

Messrs. L. Prang & Company, of Boston, have issued their catalogue of Easter publications. They include many delicate and chaste designs.

Mrs. M. A. Freeman of Chicago has begun the publication of a new eight-page monthly paper called the *Chicago Liberal*. It will represent to a certain extent the opinion and report the proceedings of the Chicago Secular Union. But in addition to the advocacy of secular rights as opposed to the restraints of so called religious organizations, it will deal with the social problem in all its phases, the "woman-question," the "distinction of classes," etc., etc.; and to judge from the number before us will treat them in an unveiled and vigorous manner. The subscription price is very cheap (twenty-five cents a year); address, 402 West Madison Street, Chicago, Ill.

It may be interesting to men of science and affairs, who to keep abreast with the current of modern thought and action are now-a-days obliged to learn three or four languages, and especially interesting to the devotees of Volapük, that a movement is starting to resuscitate Latin as a vehicle of international thought and international linguistic communication. The organ of this movement is the *PHENIX, seu nuntius Latini Internationalis, linguae latinae ad usum hodiernum adhibendae sicut documentum editum*. It is published on the Kalends of July and December, and may be had for twelve American denarii or six English, that is for an equivalent number of pennies. The *Phoenix* contains unique and interesting reading matter for those interested in the study of Latin, and presents a number of skilful arguments in behalf of the adoption of Latin as an international language; Volapük is claimed to possess none of the advantages Latin has, and is taken severely to task for its pretensions. Whatever the future of the movement, which is indeed not hard to foresee, it is not without interest, and we hope that the number of those who "Jam inter nostros numerantur" will increase. Communications are to be addressed "Apud Societatis Internationalis Scribam." Sell's Advertising Offices, 167 Fleet Street London.

NOTES.

Dr. L. A. Rutherford, of Lumberton, Robeson County, N. C., makes an appeal to the charitable women of the North for help in the erection of an Industrial School for the colored girls of North Carolina. His circular states that this is an imperative need and will be productive of great good. Further information may be obtained on inquiry. The sum required is small.

At the Annual Meeting of the American Association for the Advancement of Science, held at Indianapolis on August 22nd last, a paper entitled "Need of a Pan-American or Universal Language" was read by Mr. R. T. Colburn before the Anthropological

Section. Mr. Colburn suggests that the prevailing languages of the world should be supplanted by a single symmetrical and acquirable one, phonetic in character, based on the English language.

In *The Open Court* of January 1st we made a note of the founding of an institution in Paris called the "Comité des Etudes Morales," the object of which was the association of eminent moral teachers and ethical philosophers in France (and of other countries, as corresponding members) for the purpose of encouraging the study and practice of ethical science and furnishing the guiding principles to such a study and practice by the collection of precepts and the philosophical formulation of principles. Among the collaborators of the "Comité" are Madame Clémence Royer and M. Letourneau. We may quote a few of the statements and maxims that have been entertained for acceptance as forming a basis for inquiry: "Ethics, regarded in its most general acceptation, embraces the knowledge, the love, and the practice of the good." "Its object is to determine the law of will; or the norms of human conduct." "It is the sum of the duties imposed on the individuals of the same race and same species, to effect the realization of its ultimate ends, that is, the greatest possible good." "Ethics is not an arbitrary set of opinions, imposed by dogmatism, and of truth undemonstrated, but a natural law and therefore immutable; obedience of this law is necessary to the preservation and the progress of individuals as well as of society; we acquire knowledge of it by the profound study of nature and ourselves." "The basis of ethics is the nature of man; ethical laws should therefore be the outcome of natural laws." Ninety-four propositions of this and a like character have been submitted for consideration; The object of their propounding is to outline a basis of inquiry with regard to the subject "Ethics" (title 3 of the general programme), in which the opinions of all, however contradictory, may be examined and entertained for adoption, subject to the sole condition that their conception is free from all questions of creed and religious or supra-natural hypotheses. All thinkers, ethical societies, masonic associations, etc., are invited to examine the articles and to present their opinion with respect thereto. The address of the president, M. Jean-Paul Cée, from whom circulars and further information may be obtained is 48 Rue Montmartre, Paris.

THE MONIST.

A QUARTERLY MAGAZINE.

OF

PHILOSOPHY, SCIENCE, RELIGION, AND SOCIOLOGY.

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CHARLES BRADLAUGH.

BY MONCURE D. CONWAY.

ON the 242d anniversary of "King Charles the Martyr" died another Charles, who represented the more civil but more fatal steel which England keeps suspended over its throne. Charles Bradlaugh was something of a martyr too. His herculean frame, which lies low in his fifty-eighth year, must have lasted many years longer had he continued a comfortable Christian. But in his seventeenth year, when he became slightly skeptical, a pious hunt began: the superintendent of a Sunday school, in which he had taught, started a clerical hue and cry; Bradlaugh was driven out of his situation of solicitor's errand boy, and, after nearly starving, passed three wretched years as a soldier in Ireland. His strength sapped by early privations was further impaired by years of persecution; in defending the freethinker's right to speak in public, to print his opinion, to testify in court, to sit on juries, to sit in parliament, he received blow after blow from the tyranny he was overthrowing; his accumulated costs bound on him a burden of debts that wore upon his life, and was largely instrumental in weighing him down into his premature grave. Yes, Bradlaugh was a martyr. No Christian of our time has had a heavier cross to bear. In this country Bradlaugh was known by his lectures, and in evening dress; but the man's proportions could not be truly seen in that way. His place was on a hill-side speaking to thousands of miners, swart and hungry, with a canopy of furnace-smoke for their only sky; or in his London Hall of Science, where he drilled his humble comrades for service in great issues; or in the court room, where he maintained single-handed the constitutional liberties of Englishmen against the retained casuists of Church and State. I have seen and heard him on occasions when he seemed to stand like some century-worn obelisk, scarred all over with hieroglyphs of innumerable battles. Even what friendly censors called his faults were historic and monumental. If he appeared egotistical, it was because he had been left alone by intellectual peers who should have been his friends. If his voice was sometimes shrill, it was because he was so long compelled to contend for the plainest truths and simplest justice. If he was now and then revolutionary, it was

because of the oppression that, as Solomon says, maketh a wise man mad. His faults mirrored the wrongs he had suffered. But let me not be supposed to countenance the judgments of his adversaries. No man was ever more ludicrously misjudged. He was supposed by many to be of a hard and harsh nature. In the course of a long personal acquaintance with him, during which I witnessed some of his most trying experiences, I found in Bradlaugh a womanly tenderness. He has often brought to my mind what Emerson said of Carlyle, "he was a trip-hammer with an æolian attachment." He was an affectionate husband, a kind father, a faithful friend, and most scrupulously polite to all who treated him as what he was,—a gentleman at heart. In all matters relating to sex and marriage, Bradlaugh was not merely chaste personally, but exceptionally conservative in opinion. Yet he was cruelly slandered in relation to a refined and eminent lady. The gossip was all the more cruel because, as I happen to know, these two leaders of freethought had deliberately sacrificed their happiness for the sake of their example and the honor of their cause. The lady had been driven out of her home by her husband, because of her heresies, was legally separated though not divorced, and left dependent on her own energies for her own and her little daughter's bread. Bradlaugh's wife had long been in an asylum. Morally divorced, their union might have been pardoned by society in any but so-called "infidels." Any intrigue was impossible to either, so with love in their hearts they continued apart to the last. In speaking of this matter Bradlaugh once said to me, "If I know myself, I have not a passion that I would not crush like an egg-shell rather than stain the honor of my cause." Just now, when we see the slowly raised hopes of Ireland brought to the dust by the vulgar lewdness and egotism of a trusted leader, it is but fair to place on record this heroic self-renunciation of freethinkers who had no future reward to bribe them to virtue, nor any fear of punishment to deter them from self-indulgence. It is especially just, also, because these two persons were indicted for selling, through the Freethought Publishing Company of which they were chief partners, a book alleged to be immoral,—*"The Fruits of Philosophy."* A jury declared the work to be of immoral tendency, and though the con-

viction was quashed on appeal, it is probable that some have an impression that the book was really immoral. Such, however, is not the case. The volume, written by an American physician in the last generation, is out of date, and fortunately out of print; but, with all its offences against good taste, it was an honestly meant Malthusian book. It was against my urgent advice at the time that the right to publish "The Fruits of Philosophy" was defended. But I am now inclined to think I was wrong. We have come upon a phase of social development when the right to discuss subjects of importance to human welfare is liable to restriction by a recrudescence of Puritanism. An Australian Judge (Windyer) has lately decided that the right which Bradlaugh then defended is one of increasing importance to civilized society. In England, the importance of checks to population has been recognized by all great political economists,—Fawcett, Cairnes, Mill. John Stuart Mill was, indeed, once on the point of arrest for circulating a pamphlet of the same kind. Over-population is perhaps not such a great evil in America at present, though it may become such in certain congested centres. But, apart from that, all who recognize the approach of a new moral world, and realize that it will mean chaos unless thought is free to deal with its every aspect, have reason to respect the courage with which Bradlaugh defended his right to publish the condemned book. The case being won, the work was instantly suppressed by his own order; some of its features, which he had not previously observed, having struck him as not worthy of the scientific standard he wished to maintain beside the standard of liberty.

An able law lord, before whom Bradlaugh several times had to plead, remarked to a friend of mine, "Whatever may be thought of Mr. Bradlaugh, he is certainly one of the ablest lawyers in England." His first employment was as an errand boy in a solicitor's office (where his father was a clerk,) and it is probable that he began then to read law-books. But the knowledge and skill which defeated so many shining lights of the English bar were not gained from the Inns or Temples. Bradlaugh was trained in the law by his life-long struggle for the intellectual and constitutional rights transmitted by the heroes, martyrs, and reformers of English history. I hope to review, in a future paper, some of his achievements, which appear to be little understood or realised in obituaries that I have seen. But I will add here something concerning his action, in his conflict with the House of Commons, which seems to be completely and universally misunderstood. As I was on the ground, and watched those events with much care, I am able to disabuse those who have derived an impression unfavorable to Bradlaugh. A long struggle had secured

the right of "Atheists," so-called, to testify in law courts, and to affirm instead of taking an oath. The act allowed this to any one who declared that the "oath" (as distinct from an affirmation) was "not binding on his conscience." Personally, Bradlaugh was not much concerned between "oath" and "affirmation." He was too good a lawyer not to know that the phraseology of an oath is not of the oath's substance, as the courts have repeatedly held. If a man said "So help me God," as a part of his pledge to tell the truth, it did not imply any theological or philosophical belief in God. The oath being the relic of an ancient ordeal, when it was supposed the invocation might draw down instant death on the false swearer, no educated man could take it if the phraseology were a legal part of its substance and purpose. The object of the oath is to bring him who takes it within the laws and penalties of perjury. But affirmation being optional, in the courts of law, Bradlaugh naturally preferred it. It was not supposed, at first, by any lawyer, that the act authorising affirmation in the courts did not equally extend to the parliamentary oath. Bradlaugh, however, submitted this question to the law-officers of the government. The Solicitor General and the Attorney General both declared that he had a perfect right to affirm. They so maintained afterwards, in the debate. Their opinion proved to be erroneous. The act for the courts did not extend to the House of Commons. The law-officers of Gladstone's government had unintentionally led Bradlaugh into a trap. The conservative party's lawyers had made the discovery but kept it secret until Bradlaugh requested to affirm. They then pounced on him, and proved their case. But when Bradlaugh said, "Very well, then I will take the oath," they said "No, for you have said that an oath would not be binding on your conscience." "I never said so," said Bradlaugh; "it will be just as binding on my conscience as an affirmation." To this their dishonest answer was, "You applied to affirm under the Act for the courts; and that act says those may affirm who say that an oath would not, as an oath, be binding on their conscience." Thus they took the phraseology of an Act which they contended had no application to Parliament, and applied it just far enough in Parliament to keep out Bradlaugh. That of course was a foregone conclusion, and one theory was as good as another for that purpose. The House of Commons knew it was a trick, and afterwards backed down. Since that it has recognised the character and ability of the man so brutally treated, with a shame that has at last expunged the disgraceful page from its annals. Its penitential message fell on the unconscious ear of the dying man, but it will be remembered by the people to whom he was faithful unto death.

MEMORY AND PERSONALITY.*

BY TH. RIBOT.

MEMORY is the subject of our present article. There is no reason why we should study it apart, for it is found everywhere throughout our subject. Personality in fact is not a phenomenon but an evolution; not a momentary event, but a history; not merely a present or a past, but both. We will leave aside what I shall call objective, intellectual memory; viz. perceptions, images, experiences, and stored up knowledge. All this may disappear either partially or totally; these are the diseases of memory, of which I have given numerous instances elsewhere.

Let us consider only subjective memory, that of ourselves, that of our own physiological life and of the sensations or feelings that accompany it. This distinction is purely factitious, but it will allow us to simplify.

In the first place, does there exist a memory of this kind? We might maintain, that in any perfectly healthy individual the vital tone is so constant, that the consciousness which such an individual has of its own body is only a present time, incessantly repeating itself; but this monotony, if it exists, would on the contrary, by excluding consciousness, favor the formation of an organic memory. In fact, there are always changes taking place however slight they may be, and, as we are conscious only of differences, those changes are also felt. So long as they are feeble and partial the impression of uniformity will persist, because the incessantly repeated actions are represented in the nervous system in a far more stable manner than the ephemeral changes. Their memory by sequence is organized beneath consciousness, and hence is all the more solid. Here lies the foundation of our identity. These diminutive changes will act in the long run, and produce what is called the insensible change. After ten years of absence an object, a monument is seen to be the same; but it is not *felt* the same; it is not the faculty of perceiving, but its accompaniment that has changed. Yet all this belongs to the state of health, and is the simple transformation inherent in all that lives and evolves.

Here, then, we have the vital habitude of an individual represented by another habitude, viz. organic memory. Let us suppose the entrance of causes, almost unknown, of which we are only able to verify the subjective and objective effects. They produce a deep, sudden or at least rapid and persistent transformation of the *cœnesthesis*. What will then happen? Experience alone can return an answer, since ignorance of the causes reduces us to pure empiricism. In extreme cases,—and we shall not notice others,—the individual

is changed. As regards memory this metamorphosis is met with under the following three principal forms:

1. After a more or less protracted period of transition, the new personality alone remains; the old personality is forgotten (as in the case of the patient of Leuret). This case is a rare one. It supposes that the old *cœnesthesis* has been entirely abolished, or at least, has for all time become inactive and incapable of reviviscence. We need not wonder at meeting so seldom with a case of this kind, when we consider that the *absolute* transformation of personality, that is, the substitution of one personality for another—completely so without reserve and without any link connecting the present with the past—supposes a radical change within the organism. To my knowledge there does not exist any case in which the second personality has not inherited at least a few relics of the other, were it only certain acquisitions become automatic, such as walking, speaking, etc.

2. Generally, the old organic memory will subsist below the new sense of the body, which has been organized and which has become the basis of the existing ego. From time to time it will return to the consciousness, weakened like any youthful recollection that has not been revived by repetition. This reviviscence probably has for its cause some background common to the two states; and then the individual appears to himself as another. The existing state of consciousness will evoke one that is similar, but which has a different accompaniment. The two appear as *mine*, although they contradict each other. Such are those patients, who find that all remains the same, and nevertheless that everything is changed.

3. Finally, there are the cases of alternation. Here it is hardly doubtful that the two subjective memories—the organized expression of the two *cœnestheses*—subsist and by turns predominate. Each is accompanied by, and puts into activity, a certain group of feelings, of physical and intellectual aptitudes, which do not exist in the other. Each forms a part of a distinct complexus. The case of Azam affords an excellent example of the alternation of two memories.

Upon this subject we could not say anything more without falling into repetitions, or without accumulating a number of hypotheses. Ignorance of the causes arrests our progress. The psychologist is here like a physician who is confronted by some disease that only betrays its symptoms. What then are the physiological influences that thus change the general tone of the organism, consequently the *cœnesthesis* and the memory? Is it through some condition of the vascular system? Is it an inhibitory action, an arrested function? No one can say. Until this problem has been solved, we cannot penetrate beneath the surface of the question. We have simply wished to show

* Translated from the French (*Diseases of Personality* Chap. III. 3.) by

that memory, although in some respects blended with personality, is not its last foundation. Memory rests upon the state of the body whether conscious or not, and depends upon it. Even in the normal state the same physical situation has a tendency to recall the same mental situation. I have frequently remarked that at the moment of falling asleep, some dream of the preceding night, until then entirely forgotten, will suddenly return to my recollection completely and vividly. In travelling, when leaving one town to sleep in another, this reproduction will sometimes take place; but my dream will then emerge in disconnected fragments, which it is difficult to reconstruct. Is this the effect of the physical conditions—alike in the former instance, slightly modified in the latter? Although I have not seen the above fact mentioned in any work on dreams, I doubt whether it is a particular and exclusive experience of my own.

Then again, there are other well-known facts, even more conclusive. In natural or induced somnambulism the events of former states, forgotten during wakefulness, will return during the hypnotic state. Let us recall to mind the well-known story of the carrier, who while intoxicated lost a packet, which he was unable to find when sober; he got drunk again and then found it. Is there not in this instance a marked tendency toward the constitution of two memories—the one normal, the other pathological—expressions of two distinct states of the organism, and which are like embryonic forms of the extreme cases that we have spoken about?

A CHAPTER ON ANTHROPOPHAGY.*

BY RICHARD ANDREE.

THE following essay is the last chapter, the summing up, of an exhaustive ethnographical study of anthropophagy. After briefly surveying what may be called prehistoric cannibalism—taking into account the various tell-tale remains that have been found in different places, the testimony of old writers, the witness of myths, legends, and fairy tales, and the like—the author refers one after the other to all the known anthropophagous tribes of the world. The chapter translated is simply a chapter of conclusions drawn from this territorial survey. In a measure it gives the results of a volume. The preliminary discussion of prehistoric cannibalism may be summed up in a word. Though the evidences are meagre, they are conclusive. Even in Germany, the author's native land, A. Wollemaun has found heaps of human bones, burned and broken,—the remains of cannibalistic feasts—as though human beings were once burned and their bones broken for the marrow. These heaps are typical of many such remains that have been found in

various now settled districts. Comparative mythology furnishes the material for reconstructing the old world of gods and goddesses, and at the same time for establishing the early practice of anthropophagy. The myths, legends, and fairy tales of the folk lore of all nations, from the Cyclops of Homer and the cannibalistic gods and heroes of classical peoples to the brownies and witches who for love of it ate the hearts of men, all directly or indirectly bear witness to anthropophagous customs. Even in these mythical accounts we find traces of superstitious beliefs, such as are prevalent in the cannibalistic tribes of to-day; such, for instance, as that by the eating of human flesh certain powers and qualities were to be acquired. "Whoever eats a cooked human heart becomes invisible."† This old witness to cannibalism finds its parallel in the following occurrence which took place in 1871: "The people in the district Cheung-lok seized a youth, carried him to the top of a hill, where they killed him and ate his heart."‡ There is no essential difference between the cannibalistic practices of these early days, as shown by such remains as have come down to us, and those existing at the present time; and the conclusion is almost inevitable that anthropophagy is a practice once well nigh universal, but now fast dying out.

Though it cannot be denied that the proofs of the existence of anthropophagy in prehistoric times are few, and not always strictly credible, this is due largely to the insufficient number of investigations that have been made and in part to the difficulty attending such investigations. From the material of proof adduced, however, the anthropophagy of prehistoric men must henceforth be accepted; and this conclusion has nothing surprising about it when we reflect how widely spread cannibalism is at the present day, and how it once extended over wide-reaching districts where it no longer exists. Though it cannot be absolutely proved, it can be accepted that anthropophagy was one of the diseases of the childhood of the human race; that it was once extensively spread over our own part of the earth, which to-day is free from the curse. The numerous passages of the old authors mentioning it, pronounce in favor of this; and though here and there these passages may rest on exaggeration or be utter fictions, they, in conjunction with what myths and legends, fairy tales and folk-remains of all sorts teach us, form the proof in its entirety. Indeed the folk-literatures of the European peoples agree with respect to anthropophagous customs. Mention is not merely made therein of the purely material enjoyment of human flesh; but even those superstitious ideas which among

* Grohmann, *Aberglauben aus Böhmen*. No. 1448.

† W. Lohscheid, *Evidence of the Affinity of the Polynicians and American Indians*. Hongkong, 1873, 62.

* Translated from the German.

uncultured peoples are connected with cannibalism, like the anthropophagy of revenge, have there found their place as a remains and survival of the cannibalism which once existed among the primitive peoples of Europe.

All anthropophagy which exists to-day—and it is now only prevalent among a comparatively small portion of mankind—appears, however, merely as a remnant of what was once general. Those peoples among whom we still find it, have had it from primitive times. Of its first appearance among them we have no existing information; and nowhere can we perceive that cannibalism was introduced at a later day.

No portion of the earth can be said to be free from cannibalism. Where it does not prevail to-day, it formerly existed. Rich and poor lands knew it or know it still. It appears in America from the icy regions of the Hudson Bay Territory, through the tropics, to the southern point of the continent. Anthropophagy is scattered throughout all the zones, though its real home to-day is in the region of the tropics, and for this fact we can assign no sufficient ground. It is found among settled agricultural peoples, as in Africa, in full scope, not less than among roaming hordes, as in America and Australia.

How anthropophagy develops from hunger into custom and is conditioned by the physical relations of a land, can be shown by the example of Australia. In Australia it is the case that often unfruitful districts deny the necessary food by which the thinly scattered population ekes out a wretched life. With the drouths which come and often burn up all germs of life, perish the animals which, together with the necessary vegetables, make possible the support of the blacks. If the horde, forced by the want of food, does not resort immediately to cannibalism within its own tribe, it sets out and seeks other districts which may have suffered less from the drouth and thus offers the means of nourishment. Impelled by the same reasons, other and hostile tribes also go to the same territories where now a strife arises about the right to hunt. The struggle begins and the hungering hordes devour the flesh of the fallen foes which affords them welcome nourishment. Now has arrived the moment for revenge to step in as a motive for anthropophagy. The slain enemy is said to be wholly destroyed, and the Australian eats with a relish the "tongue and heart" of the fallen foe,* the organs from which proceeded the hostility and derision of the dead. Then again superstition comes into play. The savage rubs his body with the kidney-fat of the slaughtered under the delusion that thereby he will transfer to himself the strength of the foe, or he eats the fat for the same

reason. Thus superstition and revenge take rank as motives for driving people to cannibalism.

Anthropophagy appears under very different forms. Though these need not necessarily have been developed from one another, they could yet run parallel with one another. These different forms, moreover, are conditioned by the motives which lead to anthropophagy, or according to which it is practiced, and these furnish the basis for classification.

That hunger at all times and among all peoples in unfortunate circumstances has driven men to cannibalism is natural and need not here be further discussed with examples. Only in the extremest cases, when the regular, customary food failed, did men resort to human flesh for food, and the forced cannibalism ceased, when the utter want of food, which was the original cause of cannibalism, vanished. In many peoples and in many districts want and hunger, being so often dependent upon physical relations, recurred regularly so that that which in the beginning took place against the will became a habit and a custom.

Hunger has certainly been one of the leading motives which led to anthropophagy among the Fuegians, according to Darwin; among the Indians of the Hudson Bay Territory, according to Hearne; and among the Botokudos, according to Tschudi. Human flesh in and for itself is not unwholesome, and most judgments agree in this that it is palatable. The Fans (according to Winwood Reade) say it tastes like the flesh of the monkey; the Batuas praise it (according to Bickmore) above all other foods, and the same is maintained by the Melanesians of the New Hebrides and of the Fiji Islands (according to Wilkes). The Botokudos (according to Tschudi), like the inhabitants of the New Hebrides (according to Turner), prefer the flesh of the blacks to that of the whites. But there is no lack of opposing assertions, as when the Manjuema assured Livingstone that human flesh is not good, that the enjoyment of it is a fancy; and when the Nyam-Nyam told Schweinfurth that human flesh acted as an intoxicant.

But hunger which is said to furnish a physiological excuse for anthropophagy is in comparatively few cases to be regarded as the real cause of it. Most peoples and tribes which are addicted to the custom live in abundance; they have no want of vegetable and animal food. This applies to almost all cannibals of the South Sea and Africa; and even higher or lower civilization is of no influence whatever in the shocking phenomenon. The Nyam-Nyam in Central Africa rank far above many neighboring negro tribes, such as Dor, Schilluk, Dinka, etc., and still the latter are in no wise anthropophagous, while the former are cannibals in the fullest sense of the word. Even the Fiji Islanders enjoy a comparatively developed condition, and rank

* W. Powell, *Among the Cannibals of New Britain*. (German.) Leipzig, 1874, 320.

above many Polynesians, among whom anthropophagy has already disappeared even without the influence of the whites. Finally, the Batuas in Sumatra, among whom every traveler has marveled to see, side by side with a script and a literature, cannibalism brought into a form of law. And that even cultivated people are guilty of the offense of cannibalism is shown by the case of the Aztecs.

[TO BE CONCLUDED.]

OATHS.

BY GEO. L. HIBBARD.

Why administer and take oaths?

If to impress a greater sense of duty and responsibility, it may properly be questioned if such is the usual effect. Official oaths have less to recommend their use than the judicial, for it cannot be shown that a single government officer was ever constrained to do his duty by reason of his oath.

The late Civil war proved the official oath useless. It did not prevent the Southern leaders from arraying themselves against the National government and taking an oath to support the Confederacy. Oaths like promises are made to be broken; they simply indicate the mind of the party at the time; made to be observed until different conditions demand their abrogation, when others will be made, to share the same fate. To promise beyond known desires and conditions is to invite repudiation, and it makes the promise no stronger because given in the form of an oath.

We may decide then that this oath being in no way beneficial must be injurious. To take a so-called solemn oath with the full consciousness that it will be violated whenever convenience demands it, is to impair the force of all obligations, to lessen the regard for truth.

Arguments no less conclusive can be found against the use of the judicial oath. A liar is the same under all conditions, and he who speaks falsely without the oath, cannot be depended on with it.

A bad effect upon the average mind, as a result of taking oaths, is to be careless about the truth in ordinary statement or conversation. The untruthful man speaks recklessly when not under oath; put under oath he is as false as before, only more guarded in his statements. Under oath his evidence is accepted and allowed to offset that of a truthful man, the jury, the public, which give heed to him under oath would not listen to him without it, to such an extent is this error grounded in the popular mind, that taking an oath will transform a liar into a truthful man. An expression sometimes heard is "I would as soon have that man's word as his oath," and to say of a man "I would not believe him under oath" is considered an extreme statement. Thus we see two standards have become established; every-day speech is not counted sacred; it is only when oath-bound that most men feel constrained to tell the truth, or at least to approximate towards it, and then through fear, and not for the truths sake.

What can be more plain than that a loss of truth and principle is the result of this practice? The origin of oath-taking is not of such a nature as to commend it to an enlightened people. It was conceived in fear and superstition, and is maintained by the power of bigotry and tradition, for in requiring an oath in the name of a Deity, we are simply copying the practices of our Pagan ancestors.

Man was to be dragooned into telling the truth by appeal to savage, vindictive Gods, who would wreak vengeance on him if he proved false. To our shame be it said, the idea of men telling the truth for the truth's sake, is as unknown to our code as to that of the ancients. The practices observed in taking oaths are much more disgusting than impressive, for instead of all men giving evidence as men we see the Protestant swearing on the Gospels, the

Catholic on his approved version, the Mohammedan on the Koran, while John Chinaman is impressed by breaking a dish or twisting off a fowl's head.

In the courts of New York, at the conclusion of the oath, a book is presented, often a soiled, dirty one, for the witness to kiss. Only a mind filled with superstition could find more consolation in kissing a book called a Bible than one called a Dictionary. And consider the filthiness, the danger of disease in a calf-bound volume handled and kissed by clean and unclean. In a country like ours dedicated to no religion, oaths invoking any Deity or acknowledging any religious system are arbitrary and out of place.

Laws that disqualify a witness without religious belief are born of bigotry and intolerance; are repressive of honest thought, put a premium on hypocrisy, wrong some of the most estimable citizens and thereby frustrate the ends of justice. In addition to the intolerant spirit dictating such injustice, is the belief that only through fear can man be relied on to tell the truth. To make a man a liar, give him to understand you consider him one; and the reverse, if you would make a man truthful, give him to understand you expect truth.

In place of oaths we should have an affirmation or a simple promise on honor; something acceptable to all races and religions, or no religion.

That such measures would have a tendency to popularize truth and make it the common medium of communication, there can be no reasonable doubt.

Grant the fact that oaths were necessary in earlier days, they have ceased to be either needful or beneficial in the light of worthier motives and simpler ways.

Then why administer or take oaths?

CORRESPONDENCE.

IS OUR SOCIAL SYSTEM A FAILURE?

To the Editor of *The Open Court*:-

A WRITER "In Defence of Civilization," in No. 176 of *The Open Court*, tells us that "the mere fact that poverty exists, does not justify the charge that it is increased, or in any way made more painful, by our present system of labor and government." This is a statement which many people would be only too glad to see proven. For if the cause of poverty does not lie with "our present system of labor and government," then the poor and the discontented must be among us either because enough for all cannot be produced, or because an increasing proportion of the community prefer to barely subsist, rather than live in comfort, with some opportunity for mental, moral and physical development. The first supposition, that in the civilized portions of the earth, the brawn, the brains, and the labor saving machinery are not able to successfully cope with nature and provide a comfortable living for all, is manifestly absurd. It is not yet necessary to put a prohibitive tax upon child-bearing, or otherwise endeavor to enforce the Malthusian theory. Neither is it reasonable to affirm that a growing body of men and women prefer hunger and homelessness to being fed and sheltered as their well-being demands. Leaving out the exceptional cases of those who have sunk so low in the social scale that they are brutes in all but form—canker spots upon the face of society, produced by a diseased condition of the whole organism—and it is absurd to declare that the poor would continue to live in poverty and dirty squalor, if a fair opportunity was given them to extricate themselves from such unwholesome conditions.

If we find, as any political economist must admit, that our productive ability is more than able to meet the demands made upon it, and if the poor are poor by necessity rather than by choice, then certainly the trouble must lie somewhere in the sys-

tem of distributing the products of labor. No other conclusion can be drawn from the facts in the case. Indeed, this conclusion is generally admitted by those who criticize the reform measures advocated by the best-known socialist writers. Prof. T. H. Huxley has written a letter to the "London Times" condemning the scheme for the social regeneration of London proposed by General Booth. While Professor Huxley protests against General Booth's plan, he admits the general proposition of the existence of an immense amount of remediable misery in England, the result of individual ignorance or misconduct and of *faulty social arrangements*, and which, he says, must be effectually dealt with, or the increasing hordes of vice and pauperism will destroy modern civilization as effectually as uncivilized tribes of another kind destroyed the great social organization which preceded ours. What is true of England, is true, in nearly the same degree, of the great centres of population in this country. Many well-known authorities on political and scientific subjects affirm the charge of the socialist against society, the charge which the writer "In Defense of Civilization" denies, and who also tells us that "The burden of proof rests upon the prophets of revolution. They are bound to prove the justice of their charges against society and civilization." But these charges are only statements of facts which are self-evident to any person who is at all in touch with the spirit of the times. One cannot read the daily papers, one cannot go abroad in city or country and avoid coming face to face with the proofs. If one cares to look for them, to read the organs of the trade-unions or the various socialist societies, and occasionally attend the meetings of some of these organizations, he will be abundantly satisfied that there is an enormous body of men in this country, men who live from hand to mouth, intelligent, economical, liberty-loving men, who hold our present system of government responsible for their condition, and who are slowly formulating a demand for a new system which shall guarantee a fair distribution of the products of their labor. They will ultimately obtain what they demand. Peaceably, if possible. If not, by the destruction of everything which opposes them. They are not a mob, but are becoming an organized army. It is only the lowest scum of society that composes the rabble. It is this rabble which will break loose and loot and destroy, when the working men make a stand for their liberty. It is this class which may repeat the horrors of "The Reign of Terror" in days of the French Revolution. Says Cardinal Newman: "The present condition of our laboring people is one of widespread unrest. They are sore and discontented. The world of capital is alarmed and combining for its defense. The world of labor is uniting to demand a fuller and fairer share in the products of its skill and toil."

Surely it is not necessary to further "prove it," when we hear upon all sides an ominous undertone of discontent, which ever and anon rises into a passionate cry of hatred. No, it is as plain as the truth of a fact need be that the trouble lies in the present system of society which is producing not only "The Coming Billionaire," as Mr. Shearman tells us, in the *January Forum*, but an organization of labor in opposition that points to a final day of crisis, when quarter may neither be asked nor given.

Of the writers, whose well-known names are quoted by the author of the article under discussion, the following words by Bishop Huntington, in the *October Forum*, well apply: "It needs no very profound interpretation of history to see that the world's welfare in most times and places has been indebted to an order of men whose business has not been that of meddlesome disturbers or of wanton destructionists, but who have had singularly clear visions of moral distinctions, and a strong hold on the throne of everlasting justice and judgment—men who have not undertaken to turn the world upside down, but who, finding it wrong side up, have done a great deal to turn it right side up; men who have called wrong things by their right names. On the whole, they

have contributed as much toward the betterment of society as the capitalists and the leaders of industry, the master manufacturers and the multipliers of money." JOHN RANSON BRIDGE.

IN REPLY TO MR. BRIDGE.

To the Editor of The Open Court:

I AM greatly obliged to Mr. Bridge for answering the most obvious objection to the article of which he complains. Critics might have said, "We did not know that civilization needs any defence." But it seems that there is "an enormous body" of intelligent men in this country who are becoming an organized army, are going to make a movement which may involve the destruction of everything which opposes them and "repeat the horrors of the Reign of Terror." I am satisfied that any insurrection which is started in America must be a failure. The majority is sure to have its own way peaceably; and woe to him who takes up arms against it. It would be a pity to have a single life thrown away thus; and it is also a pity to have noble, generous, earnest men, like Mr. Bridge, who might do a great deal of good in the rich field of practical reform, waste their strength in beating the air.

Perhaps others may have found it as hard as he does to understand me. I said that those who assert that civilization has increased poverty ought to prove, first of all, that poverty really has increased. They have, however, not brought forward any proof that it does; and they have taken no notice of well-established facts, which prove that poverty is on the decrease. This decrease seems to me largely due to our public school system and our labor-saving machinery, both which improvements Mr. Morris and other revolutionists wish to abolish; but I will not stop here to take up *news from nowhere* for more than this remark. What I wish to point out now is that Mr. Bridge does not take the slightest notice of the facts which show that poverty is on the decrease, nor does he refer to any fact in proof that poverty increases. He merely says that this assertion is self-evident, and that "many well-known authorities on political and scientific subjects affirm the charge." He does not tell us who these authorities are; and I can tell him that I submit to no authority but that of actual fact. Nothing has done more to keep our race in ignorance than satisfaction with "well-known authorities." Mr. Bridge will find them by the dozen on both sides of every important question, for and against protectionism, free coinage, woman suffrage, prohibition, Sunday laws, and many other issues. Three hundred years ago, there were plenty of cardinals and bishops in favor of burning heretics and witches. I did not call for authorities but for facts.

My skepticism even goes so far as to doubt the infallibility of Mr. Bridge's own method of proving our social system a failure. When I consider how large a part of actual poverty is due to idleness, intemperance and extravagance, I must be slow to admit that "The poor are poor by necessity rather than by choice." And if we use the word "necessity" in so wide a sense as to cover many physical, moral, and intellectual defects, which make him who suffers from them less able than his neighbors to support himself comfortably, then we can admit poverty to be a necessary evil, without admitting that "The trouble must lie somewhere in the system of distributing the products of labor." Disease is a necessary evil; but does the trouble lie somewhere in the present system of doctoring? That system might doubtless be improved; but I do not intend to join a secret society for destroying disease by murdering all the doctors. No one who has read my articles on the tariff can suppose that I fully approve of our American system of distributing products. But the facts of history prove conclusively that poverty has actually diminished under the British system, which closely resembles our own in other respects, and I do not think that any well-known writers are going to persuade me to shut my eyes and charge, like a mad bull, head first, against civilization.

F. M. HOLLAND.

NOTES.

"The Reform Advocate" is the name of a new journal to be published weekly in the interests of Reform Judaism, especially to advocate the views of the Rev. Dr. E. G. Hirsch. Dr. Hirsch is not only a rabbi, a pastor of his congregation, indefatigable in practical work for the souls entrusted to his care; he is also a man of science and he has in his sphere made successful attempts in the reconciliation of science with religion. He has broadened the sectarian views of Judaism into a religion of science and it does honor to him that there are many gentiles among those who crowd his temple to listen to his weekly discourses.

We published a note in No. 178 concerning the imprisonment of the Editor of "Lucifer." The sentence was declared to be "unwise, excessive and unjust." At the same time we expressed our disapproval of "the methods and taste" displayed by him, mentioning also that we did not believe in the prevalence of the evils he denounces; namely, the brutal treatment of wives. It may be added however that we do believe in the prevalence of other evils and diseases produced by sins against the laws of sexual ethics. We have received criticisms of the above mentioned note and publish the following extract from a letter so that our readers may hear the other side, in case we have been in the wrong:

"I don't know who writes 'Notes,' but presume they are Editorial. In criticising or commenting on H—and H—you say, 'We do not believe the evils he denounces are prevalent.' Now I have made it my business to find out if they are so, and I think few have a better chance to know, unless it be doctors; and many will tell me who would not tell a doctor. I have lived in four States and many homes, and have an extensive correspondence as a writer for some ten or a dozen Liberal and Local papers. I have lived here many years, and if there are a dozen boys who have been raised here, and who have reached the age of twelve and fourteen, that have remained pure, I fail to have heard of it. Syphilis is so common that it is rare to find a family free of it in some form or other, and marital intemperance is almost universal. I do not approve of H's manner of expressing himself, nor of his wife's, but that either of them should be punished for it is all wrong. I believe them conscientious in their work and they compel no one to read their paper, and thrust themselves on no one. We must win the good and true through educational influences. The Open Court is usually liberal and broad and elevating, but that 'Note' was hard, harsh, and bigoted. I don't think you realized it and hence my letter."

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